

Factsheet

CAPRISA 004 Trial and Pregnancy

Summary

- CAPRISA 004 was designed to (1) minimize pregnancies and (2) minimize exposure to tenofovir gel during a participant's pregnancy. Both objectives were achieved.
- CAPRISA 004 had a very low pregnancy rate compared to other microbicide trials.
- Women who became pregnant during the trial were immediately withdrawn from using the study product.
- Short-term exposure to tenofovir gel for up to one month in early pregnancy during the trial did not raise any safety concerns for the pregnant women or their babies.

Pregnancy and tenofovir gel

Tenofovir's potential effects on the expectant mother and her fetus are not fully understood. Surveillance studies of women who use oral tenofovir tablets for treatment suggest little, if any, risk of harm to the baby. Animal studies suggest that oral tenofovir tablets pose a minimal risk, if any, to the fetus. In principle, the gel formulation of tenofovir should be even safer because the fetus is exposed to lower levels of the drug when the mother uses the topical gel instead of the oral tablet.

Minimizing the number of pregnancies during the trial

The CAPRISA scientists carefully designed a comprehensive family planning program that helped women to prevent unintentional pregnancies by using a reliable contraceptive method. Several women in the study were referred from family planning clinics for screening and enrollment in CAPRISA 004. Further, the study provided hormonal and barrier contraceptives and intensive contraceptive counseling during each study visit. Women who preferred other forms of contraception were referred to local public family planning clinics.

Women who wished to take part in the study were required to meet all of the following criteria: (1) voluntary use of a non-barrier form of contraception (such as an injectable hormone, oral contraceptive pills, or intrauterine contraceptive device (IUD), hormonal implants, or had a surgical sterilization; (2) a negative pregnancy test and (3) have no plans to become pregnant for the duration of the trial.

Other reasons to reduce the number of pregnancies

A low pregnancy rate also has some practical benefits for the conduct of a trial and the interpretation of the data. That's because a high pregnancy rate reduces the number of participants who will use the study product, which diminishes the statistical power of a study and decreases the scientists' ability to measure the clinical significance of their results.

Pregnancies during the trial

The strategies used by the CAPRISA 004 scientists to minimize pregnancies during the trial protected women's reproductive rights. These strategies assisted CAPRISA 004 participants to increase their use of contraceptives, which resulted in low pregnancy rates.

Key findings related to pregnancies in CAPRISA 004:

- Fifty-four pregnancies occurred among 53 women during the study follow-up.
- The pregnancy rate was only 4.0 per 100 women-years, which is very low compared to other microbicide trials.
- Twenty-seven pregnancies resulted in full-term live births (6 pregnancies were ongoing at the time of this analysis).
- No significant differences in pregnancy outcomes exist between the tenofovir gel and placebo gel groups.
- No congenital anomalies occurred among the 31 babies born to women who became pregnant during their participation in the study.

Resources for pregnant participants

If a participant became pregnant during the clinical trial, she was immediately withdrawn from using the study product. All pregnant women were referred to an antenatal clinic while they continued their monthly follow-up visits at the study clinic. The study's staff members remained in contact with the pregnant participant until the outcome of the pregnancy was known and the study product could be resumed. The outcome of each pregnancy was recorded in the study's database.

Next steps

We continue to monitor 6 ongoing pregnancies. The outcomes of these pregnancies will be included in the trial database and in the analysis of the trial's pregnancies and pregnancy outcomes. We have followed the pregnancies and the health of the babies for only a few months after exposure to tenofovir gel. New long-term studies are urgently needed to determine the safety of tenofovir use during pregnancy. Also, babies born to mothers who used tenofovir during their pregnancies need to be followed from birth through childhood; and mothers, including those who acquired HIV after exposure to tenofovir gel, should be followed for at least 2 years after delivery.