

ABSTRACT

BACKGROUND:

For women at risk of HIV-1, effective contraception and effective HIV-1 prevention are global priorities.

METHODOLOGY:

In a clinical trial of pre-exposure prophylaxis (PrEP) for HIV-1 prevention in HIV-1-serodiscordant couples, we estimated the effectiveness of hormonal contraceptives (oral contraceptive pills, injectable depot medroxyprogesterone acetate, and hormonal implants) for pregnancy prevention relative to no contraception among 1785 HIV-1-uninfected women followed up to 36 months. We compared the effectiveness of each method among women assigned PrEP versus placebo. Contraception was not required for participation, but was offered on-site and was recorded monthly; incident pregnancy was determined by monthly urine testing.

RESULTS:

For women using no contraception, overall pregnancy incidence was 15.4% per year. Women reporting oral contraceptive use had comparable pregnancy incidence to women using no contraception, and this lack of contraceptive effectiveness was similar for those assigned PrEP and placebo (17.7 and 10.0% incidence per year, respectively; P-value for difference in effect by PrEP use = 0.24). Women reporting injectable contraception had reduced pregnancy incidence compared to those reporting no contraception, which did not differ by arm (PrEP 5.1%, placebo 5.3% per year; P-value for difference=0.47). Contraceptive effectiveness was highest among women using implants (pregnancy incidence <1% per year in both arms).

CONCLUSION:

PrEP had no adverse impact on hormonal contraceptive effectiveness for pregnancy prevention. As seen previously in similar populations, women reporting contraceptive pill use had little protection from pregnancy, possibly due to poor adherence. Injectable or implantable hormonal contraception and PrEP provide effective prevention for pregnancy and HIV-1.