High STI Incidence Among Women Who Initiated PrEP During Pregnancy in Kenya

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Background: Incidence of sexually transmitted infections (STIs) is high among women on PrEP. Yet, limited data exist on STIs among women initiating PrEP during pregnancy, a period when STIs pose risks to women and infants.

Methods: We analyzed data from an ongoing RCT that enrolled pregnant women initiating PrEP at 5 clinics in Western Kenya (NCT04472884). All women were HIV-negative, ≥18 years, between 24-32 weeks gestation, initiating PrEP that day within routine antenatal care, and had high empiric HIV risk scores. A subset of women were offered Chlamydia Trachomatis (CT) and Neisseria gonorrhoeae (NG) testing using Xpert CT/NG® assays with same-day results in pregnancy, at 6and 9-months post-delivery. Women with CT or NG were offered immediate directly observed treatment (DOT) and expedited partner therapy (EPT) per national guidelines. Incident cases were defined as CT/NG detected following a prior negative test.

Results: As of January 2024, 223 pregnant women initiating PrEP were offered CT/NG testing—all accepted. The median age of women was 26 years (IQR 22-30) and median gestational age was 27 weeks (IQR 25-29). Most women were married (77%), 36% were primigravida, 2% had syphilis, and 95% had partners of unknown HIV status. Prevalence of CT and/or NG during pregnancy was 19/223 (9%): 4% CT, 4% NG, and 1% CT/NG coinfection. Women <24 years were twice as likely to have prevalent CT and/or NG as older women (13% versus 5%, prevalence ratio=2.5, 95% CI: 1.04-6.19, p=0.042). Overall, 18 incident cases of CT and/or NG infections occurred in 144.6 total person-years of follow-up (median follow-up 0.8 years, IQR 0.7-1.0) yielding an incidence of 12.4

per 100 person-years (95% CI: 7.8-19.8). Incidence of CT and/or NG was 5-fold higher among women <24 years (hazards ratio=5.0, 95% CI:1.8-14.1, p=0.002). Same-day DOT and EPT acceptance was high (94%); at subsequent visits 62% reported offering EPT to partners, of whom 94% said partners completed EPT.

Conclusions: We found high CT/NG incidence among women initiating PrEP during pregnancy, especially younger women. Our results indicate that primary STI prevention would be a high-yield strategy in this population, in addition to expanding STI testing and EPT programs.

