**Methods** In a prospective study among 2269 HIV-1 infected ART-naive women from 7 countries in East and southern Africa, we examined the effect of pregnancy on HIV-1 disease progression. We used random effects models to compare CD4 and plasma viral load changes between pregnant, postpartum and non-pregnant periods (prenatal periods from women who became pregnant and all periods from women who did not become pregnant). Among women who became pregnant, we compared CD4 counts during prenatal, pregnant, and postpartum periods.

**Results** Women contributed 3471 person-years and 475 women became pregnant (7.2% of time was pregnant and 6.8% was postpartum). After accounting for baseline levels, CD4 counts were 67.7 cells/mm³ lower (95% CI 55.5–79.9) during pregnant compared to non-pregnant periods and 81.2 cells/mm³ lower (95% CI 65.3–97.2) during pregnant compared to postpartum periods. After adjustment for baseline viral load, there were small increases in plasma viral load: a 0.05 log₁₀ increase in pregnant vs. postpartum periods (95% CI 0.01–0.10) and a 0.08 log₁₀ increase in pregnant vs. postpartum periods (95% CI 0.01–0.14). Postpartum CD4 and plasma viral loads were not different from non-pregnant periods (p = 0.1 and p = 0.5). Among women who experienced pregnancy, CD4 counts were 59.6 cells/mm³ lower (95% CI 55.2–64.0) during pregnant versus prenatal periods and 71.6 cells/mm³ lower (95% CI 48.0–95.1) during pregnant versus postpartum periods. Prenatal and postpartum CD4 counts were similar (p = 0.4).

**Conclusion** CD4 count and plasma viral load changes among HIV-1 infected women during pregnancy are not permanent and are likely to return to prenatal levels. Pregnancy was not associated with subsequent disease progression.

**Poster presentations**

**P3.201** RECENT SYPHILIS PREDICTS HEPATITIS C VIRUS (HCV) SEROCONVERSION AMONG HIV-POSITIVE MEN WHO HAVE SEX WITH MEN (MSM)


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**Background** There is evidence of sexual HCV transmission among HIV-positive MSM from the UK and Europe. We estimated HCV seroincidence and its risk factors in a North American population of HIV-positive MSM with no known history of injection drug use.

**Methods** We analysed data from the OHTN Cohort Study, an ongoing cohort of persons in HIV care in Ontario, Canada. Data were obtained from medical charts, interviews, and record linkage with the provincial public health laboratories. We restricted the analysis to 1,534 MSM who: (1) did not report injection drug use; (2) were under follow-up in 2000–2010; and (3) had 2+ HCV antibody tests, of which the first was negative. Person-time commenced at the later of the HCV-negative result or HIV diagnosis and ended at the first HCV+ or last date of follow-up (median 6.1 person-years (PY) of follow-up; sum 9,987PY).

**Results** We observed 51 HCV seroconversions, for an overall incidence of 0.51 per 100PY (CI: 0.39–0.67). Annual incidence varied from 0.16 to 0.89 per 100 PY, with no statistical evidence of a temporal trend. Seroconversion was statistically-significantly associated with acute syphilis infection in the previous 6 months (adjusted hazard ratio = 4.9, CI 1.2–21) and there was a marginally statistically-significant association for men who had not yet initiated antiretroviral treatment (adjusted hazard ratio = 1.9, CI 0.91–4.0). There were no statistically significant effects of age, ethnicity, region, CD4+ cell count or viral load.

**Conclusion** Sexual behaviour was unmeasured and we cannot exclude the possibility of HCV acquisition via unreported injection drug use. Nevertheless, the strong association with recent syphilis suggests that at least some cases were due to sexual transmission. Future research is needed to establish whether syphilis is a marker for high-risk behaviour or may potentiate sexual HCV transmission among persons with HIV.