

**Comparison of Diabetes Mellitus Prevalence and Risk Factors among HIV-Infected Antiretroviral (ART) Naïve Individuals versus Individuals in the National Health and Nutritional Examination Survey (NHANES) III Cohort**

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**Background:** Racial/ethnic minorities are at risk for diabetes mellitus (DM). Women may be at risk due to higher body mass index (BMI). Among HIV-infected persons, ART use and Hepatitis C (HCV) infection have been associated with DM. To determine whether “traditional” risk factors (age, BMI, race) are risk factors for DM in HIV-infected individuals we compared factors associated with DM among HIV-infected adults and the general population.

**Methods:** Cross-sectional analysis of ART-naïve HIV-infected adults enrolled in 3 CPCRA clinical trials vs. screenees from NHANES III. We used logistic regression to identify factors independently associated with DM.

**Results:** In CPCRA (n=2535) 50% were African-American (AA), 15% Latino, 22% female (F), 15% were injection drug users (IDU), and 53% of men had sex with men (MSM). In NHANES (n=6585) 20% were AA, 31% Latino, 54% F, 2% IDU and 3% MSM. Mean BMI was lower in CPCRA vs. NHANES (25 kg/m<sup>2</sup> vs. 28 kg/m<sup>2</sup>, p<0.01). Prevalence of DM was lower in CPCRA vs. NHANES (3.3% vs. 4.8%, p<0.01). On bivariate analysis, race, older age, and higher BMI were associated with DM in both cohorts; HCV, female gender and non MSM status were associated with DM in the CPCRA. After adjustment, AA, Latino race, age and BMI were associated with DM in both cohorts. HCV was associated with DM in the CPCRA cohort (Table). We also explored associations by gender and race. Among AAs, older age and higher BMI were associated with DM for men and women in both cohorts. HCV infection was associated with DM among AA men in CPCRA (AOR=2.94, p=0.03). The sample did not permit separate analyses among whites and Latinos.

Adjusted Odds Ratios (95% Confidence Intervals) for DM		
	CPCRA	NHANES
Age (per 10 year increase)	3.10 (2.26,4.26)	2.17 (1.81,2.62)
BMI (per 1 kg/m <sup>2</sup> increase)	1.13 (1.09,1.17)	1.07 (1.05,1.10)
Latino	2.38 (1.02,5.56)	2.28 (1.52,3.40)
AA	2.38 (1.19,4.76)	1.80 (1.14,2.83)
HCV	1.93 (1.01,3.68)	0.96 (0.29,3.18)
IDU History	0.78 (0.38,1.62)	0.77 (0.15,3.99)
MSM	1.25 (0.71,2.19)	1.72 (0.64,4.62)
Female	1.19 (0.67,2.10)	1.03 (0.72,1.46)

**Conclusion:** While our analyses confirmed the association between Hepatitis C and DM, traditional risk factors for DM were the dominant ones among ART-naïve HIV-infected adults and mirrored those of the general population. Prospective studies are needed to determine the effect of ART on the development of DM and the relationship between gender and HCV/HIV co-infection in this population.