

P0016

Paper Poster Session
HIV clinical follow-up

Maintenance of non-HIV cardiometabolic comorbidity control among HIV-infected veterans' affairs patients: a comparison between single tablet and multiple tablet antiretroviral regimens

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Background: Cardiometabolic comorbidity control (CMCC) is an important non-HIV outcome for patients with HIV-infection as this is one of the leading non-HIV causes of death. The advent of single-tablet antiretroviral (ART) regimens (STR) have decreased medication regimen complexity compared to multiple-tablet regimens (MTR) among HIV-infected patients. It is unclear if the use of STR versus MTR results in improved maintenance of CMCC. The study objective was to determine if CMCC was predicted by use STR or MTR.

Material/methods: A retrospective cohort study, employing repeated subject sampling, was performed among adult HIV-infected patients receiving care in the Upstate New York Veterans' Healthcare Administration from 2000-2013. Inclusion criteria were: 1) receipt of ≥ 3 ART medications for ≥ 3 months, 2) normal/controlled baseline blood pressure (BP), glucose, or lipid values and 3) availability of on-treatment BP/glucose/lipids. Patients on fixed-dose monotherapy with AZT/ABC/3TC were excluded. Data elements collected from medical records included demographics, comorbidities, concomitant medications, and BP/glucose/lipid values. The outcomes of interest was maintenance of BP/glucose/lipid control, as defined by current treatment guidelines (JNC-8/ADA/ATPIII guidelines). For each outcome under study (BP, glucose and lipid maintenance), bivariate and multivariate (MV) analyses were performed to assess the relationship between STR/MTR and maintenance of BP/glucose/lipid control. Variables associated ($p < 0.2$) with outcome in bivariate analyses were eligible for entry into MV models.

Results: The proportion of individuals on STR was 16.1%. Among the 757 patients with normal BP at baseline, maintenance of BP control significantly differed between STR/MTR recipients (60.7% versus 69.9%, $p = 0.04$). In MV analyses STR use was not significantly associated with maintenance of BP control (odds ratio, OR: 1.52, 95%CI: 0.98-2.33, $p = 0.06$), after adjustment of prior diagnosis of hypertension (OR:3.64, 95%CI: 2.61-5.08, $p < 0.001$), use of > 19 non-ART drugs (OR:2.80, 95%CI: 1.37–5.70, $p = 0.005$) and IV heroin (OR: 1.64, 95%CI: 1.09-2.48, $p = 0.02$). For 784 subjects with normal baseline glucose values, maintenance of glucose control did not significantly differ between STR/MTR recipients (68.5% versus 68.3%, $p = 0.96$). In MV analyses, STR use was not independently associated with maintenance of glucose control (OR: 1.02, 95% CI: 0.66–1.55, $p = 0.95$) after adjusting for baseline glucose values (OR: 1.03, 95% CI: 1.01-1.04, $p < 0.001$) and prior diagnosis of diabetes (OR: 2.77, 95% CI: 1.83–4.19, $p < 0.001$). Among the 388 subjects with normal baseline lipids, maintenance of lipid control did not statistically differ between STR and MTR recipients (81.2% vs 79.9%, $p = 0.82$). This persisted in the MV analyses (OR: 0.97, 95% CI: 0.50-1.88, $p = 0.92$) after adjusting for number of concomitant comorbidities (OR: 1.03, 95% CI: 1.00–1.05, $p = 0.03$).

Conclusions: Among HIV-infected patients with CMCC, use of STR/MTR was not independently associated with improved maintenance of BP/glucose/lipid control. Future studies should elucidate if this relationship is modified by type of ART regimen.