

P0012

Paper Poster Session
HIV clinical follow-up

Relationship between single-tablet regimen and adherence to HIV and non-HIV medications

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Background: Single tablet antiretroviral (ART) regimens (STR) are convenient and reduce pill burden compared to multiple tablet regimens (MTR). Improving convenience and pill burden can enhance medication adherence. The objectives of this study were to evaluate medication adherence to both ART and non-ART medications between STR and MTR recipients.

Material/methods: A retrospective cohort study, employing repeated subject sampling, was performed among HIV+ adults receiving care in Upstate New York Veterans' Healthcare Administration from 2000-13. Inclusion criteria: 1) receipt of ≥ 3 ART medications for ≥ 3 months and 2) availability of medication list and pharmacy refill records. Data collected included demographics, comorbidities, medications, and dispensing history. Medication adherence was defined using pharmacy refill records. Adherence to ART was defined as ≥ 3 ART agents in a patients' possession at any given time. Percent adherence was calculated by dividing the number of adherent days by the total days of therapy. Adherence to non-ART chronic medications was defined as having no medication in possession. Classification and regression tree used to identify breakpoints.

Results: Of the 1202 subjects, 165 (13.7%) were on STR and the remainder were on a MTR. Mean \pm standard deviation (SD) age at start of regimens for STR and MTR recipients were 53.0 ± 9.0 and 50.3 ± 8.8 years, $p < 0.001$, respectively. Adherence to ART is displayed in Figure 1. Variables independently associated with optimal ART adherence ($\geq 90\%$) were: use of STR (odds ratio, OR: 4.66; 95% confidence interval, CI: 3.18 – 6.82, $p < 0.001$), age ≥ 50 years (OR: 1.52; 95% CI: 1.08 – 2.15, $p = 0.02$) and use of ≥ 6 non-ART medications (OR: 0.46; 95% CI: 0.33 – 0.65, $p < 0.001$). For non-ART medications, mean \pm SD adherence did not differ between STR ($78.9 \pm 13.8\%$) and MTR ($81.1 \pm 13.4\%$) recipients, $p = 0.07$. Variables independently associated with optimal non-ART adherence ($\geq 90\%$) were use of ≥ 6 non-ART medications (OR: 0.46; 95% CI: 0.36 – 0.60, $p < 0.001$) and ART adherence $\geq 90\%$ (OR: 2.84; 95% CI: 2.03 – 3.97, $p < 0.001$).

Conclusions: Adherence to ART medications was significantly higher for STR versus MTR recipients. Adherence to non-ART medications was similar between STR and MTR recipients. Polypharmacy (use of ≥ 6 medications) was deleterious to optimal adherence ($\geq 90\%$) to both ART and non-ART medications. Clinicians may opt to choose STR for HIV treatment to reduce the number of prescriptions and optimize adherence in HIV+ adults.

Relationship between single tablet and multiple tablet regimens and ART Adherence

