The Impact of Antiretroviral Tablet Burden and Polypharmacy on Viral Suppression in Treatment-Naïve Patients

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BACKGROUND

Studies have suggested that the tablet burden associated with antiretroviral therapy (ART), as well as non-ART polypharmacy, negatively affect adherence to treatment and subsequent virologic outcomes. This study assessed the impact of drug burden on patients initiating ART using the simplified INSTI-based STR regimen compared with the multi-tablet regimen (MTR).

OBJECTIVE

To assess the effects of STR and MTR as well as non-ART pill burden on virologic outcomes.

METHODS

The study population was extracted from the Observational HIV Outcomes Research and Epidemiology (OBER) cohort, which includes prospectively-collected, routine clinical data from patients at 79 independent clinics in the United States. Study population included treatment-naive patients initiating ART between 1/1/2007 and 12/31/2015. Patients were followed from treatment start date until regimen change, death, loss to follow-up, or study end date (March 31, 2016).

RESULTS

A total of 3560 eligible treatment-naive HIV patients initiating ART were included in the analysis involving 3,142 (88.3%) taking STR-ART and 3,048 (87.7%) taking MTR-ART. Patients taking an STR were more likely to achieve suppression (91.7% vs. 88.3% STR vs. MTR) and less likely to rebound after suppression (12.1% STR vs. 15.7% MTR). Multivariable Cox regression comparing STR initiators to MTR initiators indicate increased likelihood of suppression and decreased risk of rebound. (Table 3)

Patients initiating on an STR vs. MTR were younger and healthier, with a lower median baseline VL and higher median baseline CD4. (Table 1) STR initiators were less likely to have experienced an AIDS-defining event prior to baseline, have a history of hepatotoxic C infection or substance abuse, and had fewer comorbidities and lower non-HIV pill burden.

Overall, treatment-naive patients initiating on an STR were more likely to achieve viral suppression and less likely to experience virologic rebound than patients initiating on a MTR.

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REFERENCES


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