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Paper Poster Session III

HIV/AIDS

Evaluation of safety and efficacy of first-line antiretroviral single tablet regimens (STR) in the correctional setting: is one tablet once daily the best option?

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Objectives:

Evaluate whether single tablet regimens (STR) or multi-tablet regimens (MTR) differed in achieving viral suppression in Human Immunodeficiency Virus (HIV) positive patients incarcerated in the Illinois Department of Corrections (IDOC) through the provision of telemedicine. The primary endpoint assessed the number of patients with an HIV viral load (VL) < 50 copies/mL for STR compared to MTR. Secondary endpoints compared differences in absolute CD4 count, adverse effects, adherence, and discontinuation rates.

Methods:

A retrospective electronic chart review was performed for HIV patients in IDOC receiving telemedicine care through the University of Illinois at Chicago between July 11, 2010 and July 1, 2013. Enrolled patients were HIV positive inmates over 18 years of age incarcerated in IDOC who received STR (Atripla®, Complera®, or Stribild®) or first-line MTR according to Department of Health and Human Services 2013 guidelines (tenofovir/emtricitabine with atazanavir/ritonavir, darunavir/ritonavir, or raltegravir). Data was collected at 24 week intervals and concluded at 72 weeks, when a patient was released from IDOC, or when a patient changed HIV regimens. Data collected included age, gender, ethnicity, risk factor for HIV transmission, HIV VL, absolute CD4 count, adverse effects, medication adherence, development of resistance, and discontinuation.

Results:

There were 553 patients included (88% male, 80% Blacks, average age 41.2 years, STR 69%, MTR 31%). The most common STR and MTR was Atripla® (96%) and tenofovir/emtricitabine with ritonavir boosted atazanavir (73%), respectively. There was no significant difference in virologic suppression in treatment-naïve and experienced STR or MTR patients at last included study visit (86 vs. 78%, $p = 0.59$). At baseline, a significantly higher proportion of patients on MTR compared to STR had a CD4 < 200 cells/mm^3 (20 vs. 7%, $p < 0.0001$) and continued to be significant through week 72 (2.4 vs. 0%, $p < 0.0001$), respectively. More patients reported adverse effects on a MTR than a STR (54% vs. 16%, $p < 0.0001$). Reported adverse effects for MTR included scleral icterus and diarrhea. For STR, the most common included headache, dizziness, vivid dreams, and fatigue. Discontinuation rates were due to adverse effects (9 vs. 5%) and drug resistance (2 vs. 3%) and overall (13 vs. 8%) were similar between MTR and STR, respectively. Medication adherence rates for MTR and STR were identical (99%) over a 6 month period.

Conclusion:

There was no significant difference in virologic suppression in HIV positive patients receiving STR or MTR during incarceration in IDOC who were being followed through telemedicine. As similar rates of viral suppression, adherence, medication resistance, and discontinuation were found, using first-line MTR in the correctional setting is a viable alternative to STR. These findings could be applied to other controlled settings and may provide cost-savings as more generic antiretrovirals become available.