Evaluation of Weight Gain Associated With First- and Second-Generation Antiretroviral Therapy:

Background. There is increasing evidence that integrase strand transfer inhibitors (INSTIs) are associated with more weight gain when compared to other antiretroviral (ART) classes. Thus, the primary objective of the study was to evaluate the difference in weight gain at 6 and 18 months among treatment-naive patients started on an INSTI-based versus a non-INSTI-based ART regimen.

Methods. This was a retrospective cohort study of ART-naive adults who were initiated and maintained on INSTI and non-INSti-based regimens for at least 18 months at an HIV clinic in an inner-city hospital from January 2013 to June 2019. The non-INSti-based regimens were darunavir (DRV) or rilpivirine (RPV)-based. Data collected included patient demographics, ART regimen, pre- and post-ART initiation weight in kilograms (kg), body mass index (BMI), CD4 count, and viral load. A two-tailed t-test was used to compare change in weight in INSTI-based versus non-INSTI-based regimens. Sub-group analyses were conducted using the ANOVA test.

Results. Out of 170 patients, 60% were initiated on an INSTI-based regimen, 7.1% on a DRV-based regimen, and 32.9% on a RPV-based regimen. Of the patients initiated on INSTI-based regimens, 73.5% were on elvitegravir (EVI), 16.7% on dolutegravir, 8.8% on bictegravir, and 0.98% on raltegravir. The mean age at ART initiation was 38 years with majority of the patients described as Black. More male patients received an INSTI-based regimen compared to females (77.5% vs. 32%). The average change in weight at 6 and 18 months in the INSTI-based group vs non-INSTI-based group was +3.6 kg vs. +2.9 kg (95% CI -2.2-0.7, p=0.317) and +5.7 kg vs. +4.8 kg (95% CI -3.2-1.2, p=0.357) respectively. There was no significant average change in weight among the INSTI-based group compared to females (77.5% vs. 32%). The average change in weight at 6 and 18 months in the INSTI-based group vs non-INSTI-based group was +3.6 kg vs. +2.9 kg (95% CI -2.2-0.7, p=0.317) and +5.7 kg vs. +4.8 kg (95% CI -3.2-1.2, p=0.357) respectively. Among the INSTIs, EVG was associated with the highest increase in weight at 6 months (p=0.108) and 18 months (+5.7 kg vs +7.2 kg, vs (+4.3 kg) (p=0.186) respectively. Among the INSTIs, EVG was associated with the highest increase in weight at 6 and 18 months (+3.9 kg and +5.8 kg). Forty-six percent of patients in the INSTI group were on tenofovir alafenamide (TAF) while no patients received TAF in the non-INSTI groups.

Conclusion. When comparing INSTI-based to DRV or RPV-based regimens, there was no significant increase in average weight at 6 and 18 months.

Disclosures. All Authors: No reported disclosures.
896. Examining the Impact of the COVID-19 Pandemic on Delivery of HIV Care and Prevention Services Among Patients in a Ryan White Clinic
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Session: P-51. HIV: Treatment

Background. We sought to characterize the impact of the COVID-19 pandemic on HIV-related outcomes in a cohort of patients by examining rates of viral load (VL) suppression, retention-in-care, PrEP access, and STIs.

Methods. This was a single center, retrospective study of adults receiving HIV treatment or HIV/STI prevention services from 01/2019 - 12/2020. HIV outpatient visits were identified through HRSA’s CareW ARE. Visits (in-person, telehealth) only included HIV primary care. HRSA core performance measures were utilized (Table 1). STI positivity rates and descriptive characteristics were calculated. New and refill PrEP prescriptions were tabulated. Chi-square tests compared unmatched non-parametric variables; McNemar’s test matched non-parametric variables. Multivariable logistic regression identified variables associated with retention in care and viral suppression.

Results. 1721 patients received care; 1234 were seen in both years, 334 only in 2019, 153 only in 2020. The number of telehealth visits increased significantly: video (0% to 31%, p < 0.001), phone (0% to 6%, p < 0.001). Though the proportion of kept appointments increased (57.2% vs 61.2%), the annual retention in care rate decreased from 74.3% (p = 0.001). Overall, 9.7% of patients had detectable VLs at any point. Compared to 2019, a lower proportion of patients maintained VL suppression in 2020 (91.6% vs 93.5%, p = 0.007). More patients did not have a VL drawn in 2020 than in 2019 (10.3% vs 2.0%, p < 0.001). Patients with detectable VLs in 2019 were more likely than those who were undetectable to have detectable VLs in 2020 (OR 3.2, 95% CI 1.82 - 5.62). Black race was associated with higher likelihood of lack of VL suppression (OR 2.0, 95% CI 1.10 - 3.66). There were no significant differences between gender or age groups in rates of viral suppression, number screened for bacterial STIs or positive results. Visits for new and refill PrEP prescriptions decreased by 59% and 7%, respectively.

Conclusion. Rates of viral load suppression and retention in care decreased in 2020 compared to 2019. The proportion of clinic visits attended increased after the integration of telemedicine in 2020. These data may be used to inform evidence-based interventions to improve the HIV continuum of care through telehealth.

Disclosures. Ghady Haidar, MD, Karays (Grant/Research Support)