Washington, District of Columbia [3]The George Washington University, Washington, District of Columbia [4]US Office of Global AIDS Coordinator and Health Diplomacy, Washingtoon, District of Columbia; [5]George Washington University School of Medicine and Health Sciences, Washington, District of Columbia

Session: O-20. HIV PrEP Prevention: Improving Uptake and Persistence

Background: Pre-exposure prophylaxis (PrEP) using emtricitabine/tenofovir disoproxil fumarate (FTC/TDF) effectively reduces HIV transmission, with efficacy being dependent on adherence. We evaluated the effect of either social media-based support or financial incentives on PrEP adherence among young MSM of color in Washington, DC

Methods: MSM aged 18–29 were randomized 1:1:1 to standard of care (SOC) PrEP (Control group), SOC PrEP + invitation to a bidirectional Facebook group supervised by two clinicians (Social Media group), or SOC PrEP + $50 gift card at each of two follow-up visits (Financial Incentive group). Participants were asked to return at 3 and 6 months. Adherence was monitored with predefined dried blood spots (DBS) TFVdp levels with < 490, 490–979, 980–1749 and ≥1750 fmol/punch correlating with average of < 2, 2–4, 4–6, and 7 doses per week

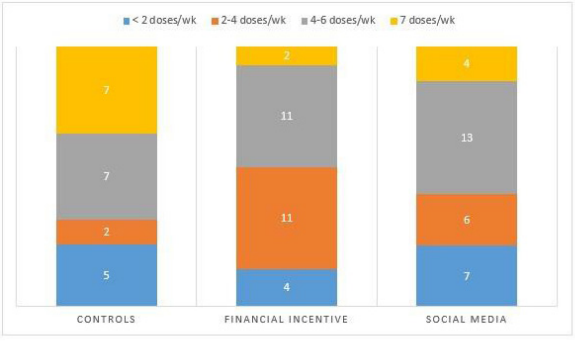
Results: We enrolled 53 MSM. Average age was 22.5 years and 72% of participants were Black. At enrollment, 96% had previously heard of PrEP, 17% had ever taken PrEP but none had taken PrEP in the prior 6 months. 92% of participants reported condomless anal sex in the prior 3 months, 36% with an HIV-positive man or man of unknown HIV status (Table 1). 81% of participants returned for their 3-month visit and 70% for their 6-month visit. Mean self-reported PrEP adherence over the previous 3 months was 78% with no difference in adherence between the three groups at either visit. Based on DBS TFVdp levels, protective PrEP adherence (≥4 doses/week) was measured in 46% of the Financial Incentive group and in 57% of the Social Media group compared to in 67% of the Control group (p=0.38). Only 16% of TFVdp levels corresponded to taking PrEP 7 days a week (Figure 1). There was no change in sexual risk activity over the course of the study. 38 sexually transmitted infections were diagnosed in 26 participants (Figure 2). No participant tested positive for HIV. 3 months after study completion, 9 participants were still taking PrEP

Table I. Sexual risk behaviors over the previous 3 months for study participants assessed at baseline visit, as well as 3 month and 6 month follow up visits

	Social Media Group n (%)	Financial Incentive Group, n (%)	Control Group n (%)	p-value
Baseline Visit, n=53	18	18	17	
Had anal sex with a male partner in the last 3 months	17 (94)	17 (94)	17 (100)	0.999
Had condomless anal sex with a male partner in the last 3 months [a]	16 (94)	16 (94)	17 (100)	0.999
Had condomless anal sex with a male partner of HIV-positive or unknown status in the last 3 months [b]	5 (31)	7 (44)	7 (41)	0.814
3 Month Visit, n=43	15	16	12	
Had anal sex with a male partner in the last 3 months	15 (100)	15 (94)	12 (100)	0.999
Had condomless anal sex with a male partner in the last 3 months [a]	13 (87)	11 (73)	12 (100)	0.206
Had condomless anal sex with a male partner of HIV-positive or unknown status in the last 3 months [b]	7 (54)	6 (55)	5 (42)	0.839
6 Month Visit, n=36	15	12	9	
Had anal sex with a male partner in the last 3 months	15 (100)	10 (83)	9 (100)	0.162
Had condomless anal sex with a male partner in the last 3 months [a]	15 (100)	9 (90)	8 (89)	0.305
Had condomless anal sex with a male partner of HIV-positive or unknown status in the last 3 months [b]	7 (47)	2 (22)	4 (50)	0.473

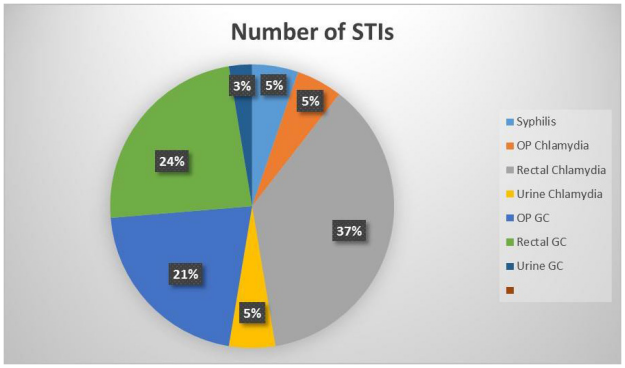
* These p-values were obtained using Fisher's exact tests.
[a] Among participants who had anal sex with a male partner in the last 3 months.
[b] Among participants who had condomless anal sex with a male partner in the last 3 months.

Figure 1. PrEP Adherence.



Adherence calculated with <490, 490-979, 980-1749 and ≥1750 fmol/punch correlating with average of < 2, 2-4, 4-6, and 7 doses per week

Figure 2. Number of sexually transmitted infections by specific etiology and site diagnosed



Conclusion: Our study showed no impact of either offering financial incentives or providing access to a supervised Facebook-based support group on PrEP adherence. Financial compensation based on level of PrEP adherence and using a more age-appropriate social media platform may have a greater impact on adherence

Disclosures: **All Authors**: No reported disclosures

106. META-INSTI: Metabolic Adverse Events Following Integrase Strand Transfer Inhibitor Administration in Spontaneous Adverse Event Reports

Milena M. Murray, PharmD, MSc, BCIDP, AAHIVP[1]; Spencer E. Harpe, PharmD, PhD, MPH, FAPhA[1]; [1]Midwestern University - Chicago College of Pharmacy, Downers Grove, Illinois

Session: O-21. HIV Treatment and Complications

Background: Unexpected metabolic effects of integrase inhibitors (INSTIs) have been reported in the literature. The FDA Adverse Event Reporting System (FAERS) is a publicly available database that captures spontaneously reported adverse events. Analysis of these data allows for the determination of whether rare or unknown events represent a cause for concern. The objective of this study was to evaluate the relationship between INSTIs and metabolic adverse events using the FAERS database.

Methods: FAERS data were queried from quarter 4 2007 through quarter 4 2019 and limited to adults. The Standardized MedDRA Query (SMQ) for hyperglycemia/new onset diabetes mellitus (H/DM) was used to identify metabolic adverse events of interest. Weight gain was defined as increased weight or increased BMI and was analyzed as a separate event. Reporting odds ratios (ROR) and 95% Confidence Intervals (CIs) were calculated for the INSTI class and for individual agents.

Results: Over 10.1 million FAERS reports were identified. H/DM was noted in 732,591 reports (7.2%); 109,566 (1.1%) reported weight gain. Consumers (49%) and physicians (23%) were the most common reporters. The most frequent countries of occurrence were the US, Great Britain, and Japan. The mean (SD) age was 57 (17) years with 63% females. Any INSTI was mentioned as a primary and/or secondary suspect agent in 18,400 (0.18%) reports (bictegravir: 1,414 [0.01%]; dolutegravir: 7,840 [0.08%]; elvitegravir: 4,034 [0.04%]; raltegravir: 5,551 [0.05%]). RORs (95% CI) for H/DM and weight gain for any INSTI were 1.20 (1.15, 1.27) and 2.16 (1.96, 2.38). For individual agents, RORs (95% CI) for H/DM and weight gain were bictegravir: 1.23 (1.10, 1.37) and 6.82 (5.50, 8.41); dolutegravir: 1.28 (1.19, 1.39) and 1.86 (1.58, 2.18); elvitegravir: 0.76 (0.56, 1.02) and 1.63 (1.37, 1.92); raltegravir: 1.00 (0.90, 1.11) and 3.29 (2.77, 3.91). H/DM was noted in 159 bictegravir and 712 dolutegravir reports.

Conclusion: Overall, H/DM was associated with bictegravir and dolutegravir; weight gain was associated with all INSTIs. Clinicians should be aware of the potential relationship with INSTIs and concerning metabolic effects and institute appropriate monitoring. Future clinical studies to evaluate these findings are warranted.

Disclosures: Milena M. Murray, PharmD, MSc, BCIDP, AAHIVP, Merck (Speaker's Bureau)

107. Impact of Switching to an Antiretroviral Regimen Containing Tenofovir Alafenamide on Weight Gain and Development of Metabolic Side Effects

Julia Darnell, PharmD[1]; Maile Karris, MD[2]; Huifang Qin, PhD[2]; Lucas Hill, PharmD[2]; [1]UCSD, La Jolla, California; [2]University of California San Diego Health, San Diego, California

Session: O-21. HIV Treatment and Complications

Background: Tenofovir is a common backbone of many antiretroviral (ARV) regimens for the treatment of HIV. Although limited, data has shown that tenofovir alafenamide (TAF) may contribute to weight gain. Our study evaluated the impact on weight gain and metabolic effects of people living with HIV (PLWH) who were switched to ARV regimens containing TAF in the real-world setting.

Methods: Single center retrospective cohort study. Included were PLWH who were on an ARV regimen not containing TAF, who were switched to a TAF containing regimen between January 1, 2016 and September 30, 2018. The control group contained patients on a TAF free ARV regimen throughout the study period. The primary outcome was change in weight from baseline at 12 months post switch. Secondary outcomes were change in BMI, development of new diabetes, hypertension, and/or hypercholesteremia.