Background. People living with HIV (PLWH) have been observed to have twice the risk for atherosclerotic cardiovascular disease (ASCVD) as the general population. Increases in total and low-density lipoprotein cholesterol have been observed in PLWH switching from tenofovir disoproxil fumarate (TDF) to tenofovir alafenamide (TAF). Changes in regimens represent an opportunity for healthcare providers to assess health markers and address clinical concerns. Current guidelines recommend initiating statin therapy in individuals with an elevated ASCVD risk. Failure to initiate statins in PLWH with an elevated risk of ASCVD not prescribed statins after switch from TDF to TAF. ASCVD scores were imputed for those with ASCVD score imputation.

Methods. Adults switching from TDF to TAF with ≤6 months prior to switch and ≥2 lipid measure on TDF and post-switch (≥7.5%). The ASCVD score was imputed using the recommended threshold: ASCVD ≥ 7.5%. The ASCVD score was imputed using the limit value for components out of the pre-specified range.

Results. 6,451 PLWH switched from TDF to TAF (Figure 1); over 90% had ASCVD scores available pre- (n = 5801) and post-switch (n = 5881). High ASCVD risk (≥27.5%) was more likely post-switch (34.1) than pre-switch (32.1%, P = 0.02; Figure 2). Of those with high ASCVD risk, only 6% and 41% were prescribed statins pre- vs. post-switch, respectively (Figure 3), representing a considerable missed opportunity for ASCVD prevention, with 59% of PLWH with an elevated risk of ASCVD not prescribed statins after switch from TDF to TAF. ASCVD scores were imputed for those outside the range of the score (e.g., patients < 40 years of age) to evaluate the entire population. Comparable results were obtained when the analysis was limited to PLWH who did not require ASCVD score imputation.

Conclusion. Despite a switch from TDF to TAF being associated with higher numbers of PLWH with elevated ASCVD risk, most did not receive a statin, representing considerable missed opportunities to reduce risk of cardiovascular disease in this at-risk population.

Figure 1. Demographic and clinical characteristics of PLWH switching from TDF to TAF (N=6,451)

Disclosures. All authors: No reported disclosures.

338. Patients Living with HIV Infection Are Less Likely to Receive the Correct Intensity of Statin Therapy for Cardiovascular Disease Risk Reduction Jason J. Schafer, PharmD, MPH; Roshini Patel, PharmD; Nicholas V. Hastain, II, PharmD and Todd Miano, PharmD, MSCE; Jefferson College of Pharmacy, Philadelphia, Pennsylvania; Hershey Medical Center, Philadelphia, Pennsylvania; Perelman School of Medicine at the University of Pennsylvania, Philadelphia, Pennsylvania

Session: 44. HIV Complications: Cardiovascular, Metabolic, and Other Complications Thursday, October 3, 2019: 12:15 PM

Background. Patients living with HIV (PLWH) at risk for atherosclerotic cardiovascular disease (ASCVD) should receive risk reduction interventions recommended in current guidelines. This includes routine ASCVD risk assessments and when eligible, statins selected and dosed to achieve appropriate low-density lipoprotein cholesterol (LDL-C) reduction. Recent studies suggest that statins are underprescribed in PLWH, but none have assessed if eligible patients receive the correct statin intensity compared with uninfected controls.

Methods. This retrospective study evaluated statin eligibility and prescribing among consecutive patients in an HIV clinic and an internal medicine clinic at an urban, academic medical center from June-September 2018. To determine statin eligibility, the 2013 American College of Cardiology/American Heart Association guideline on treating blood cholesterol to reduce ASCVD risk was used. Patients aged 40-75 that had a lipid panel obtained within the last year were included. All patients were assessed to determine eligibility for and actual treatment with appropriate statin therapy. Characteristics of patients correctly and incorrectly treated with statins were compared with chi-square testing and predictors for receiving correct statin therapy were determined with logistic multivariable regression.

Figure 2. Risk of ASCVD in PLWH switching from TDF to TAF with an ASCVD risk score* (n=3,959, 68%)

Figure 3. Statin use by ASCVD risk* in PLWH switching from TDF to TAF (N=6,451)

* ASCVD risk score calculated based on sex, age, race, total cholesterol, HDL, systolic blood pressure, hypertension treatment, diabetes and smoking status (ASCVD imputed using the limit value if out of range)

Disclosures. All authors: No reported disclosures.
Results. A total of 221/300 study subjects were statin eligible (Table 1). While many eligible PLWH were receiving a statin (54/106), considerably fewer were on the correct statin intensity for their benefit group (33/106). In the univariate analysis (Table 2), correctly treated patients were less likely to be PLWH or female, and more likely to receive correct statin therapy, while those with concomitant polypharmacy were significantly more likely to receive correct statin therapy (OR 5.52, CI 1.94, 15.69).

Conclusion. This study reveals that PLWH may be at a substantial disadvantage in terms of receiving correct statin therapy for ASCVD risk reduction. This finding may be particularly important given the heightened risk for ASCVD in this patient population.

Table 1. Descriptive Summary of Study Subjects Eligible for Statin Therapy (n = 221)

| Variable | HIV (n = 106) | Non-HIV (n = 115) | p-value |
|----------|---------------|-------------------|---------|
| Age [yrs] | 55 (10.5%) | 35 (30.4%) | <0.001 |
| Race | | | |
| White | 25 (23.1%) | 9 (8.9%) | 0.077 |
| African American | 64 (60.4%) | 92 (80.6%) | |
| Hispanic | 5 (4.8%) | 6 (5.3%) | |
| Asian | 3 (2.9%) | 0 (0.0%) | |
| Sex | | | |
| Female | 77 (70.0%) | 38 (33.2%) | <0.001 |
| Male | 29 (26.5%) | 75 (66.8%) | |
| Insurance | | | |
| None | 3 (2.9%) | 32 (28.1%) | 0.33 |
| Medicaid | 26 (24.3%) | 46 (40.0%) | 0.17 |
| Medicare | 33 (30.9%) | 54 (46.9%) | |
| Private | 36 (33.2%) | 19 (16.5%) | 0.25 |

Table 2. Characteristics of correctly treated vs. non-correctly treated patients

| Factor | Correctly Treated (n=106) | Not Correctly Treated (n=115) | p-value |
|--------|--------------------------|-----------------------------|---------|
| HIV | 33 (30.9%) | 73 (64.9%) | <0.001 |
| HIV uncontrolled | 77 (70.0%) | 38 (33.2%) | |
| Female sex | 49 (46.2%) | 65 (56.5%) | 0.037 |
| Race | | | |
| White | 16 (14.9%) | 14 (12.2%) | 0.35 |
| African American | 78 (73.0%) | 79 (68.7%) | |
| Hispanic | 7 (6.6%) | 7 (6.1%) | |
| Asian | 3 (2.9%) | 2 (1.8%) | |
| Insurance | | | |
| None | 2 (1.9%) | 1 (0.9%) | 0.37 |
| Medicaid | 41 (38.7%) | 35 (30.5%) | 0.65 |
| Medicare | 51 (47.6%) | 46 (40.1%) | |
| Private | 13 (12.4%) | 29 (25.3%) | |
| Statin eligibility | | | |
| Clinical ASCVD or LDL-C < 190 | 44 (40.8%) | 23 (20.3%) | 0.004 |
| LDL-C 190-159 and >7.5% or LDL-C >160 | 20 (18.8%) | 32 (28.8%) | |
| Diabetes and LDL-C >7.0 | 16 (15.1%) | 56 (50.0%) | |
| Polypharmacy | 100 (94.3%) | 78 (67.9%) | |
| Current Smoker | 26 (24.5%) | 38 (33.2%) | 0.20 |
| Hypertension | 44 (40.8%) | 70 (61.0%) | |

Methods. A multidisciplinary committee met to design a cessation pathway to increase smoking cessation in the clinic. The pathway began with an assessment of smoking during triage. The provider then discussed cessation during the visit and patients who were ready to quit were referred to a health educator. Upon referral, participants enrolled in the smoking cessation trust (SCT) which is a free program for patients who have been smoking before 1988 (N = 33) and provides NRT. Participants who were born after 1980 (N = 10) received their NRT through the Ryan White Formulary. The intervention consisted of a baseline interview and 5 modules. Participants received their NRT or pharmacologic agent prior to the intervention. Participants (N = 43) were PLWH from our clinic who smoke and were referred from May 1, 2018 through March 1, 2019.

Results. Participants were 79% black, 74% male and on average were 47 years old. Among participants: 21 participants met with a health educator for the initial interview and participated in the intervention, while 22 only met with the health educator for an introductory interview to determine which pharmacologic/NRT agent would work best for them. Of the 43 participants, 30 participants received pharmacologic NRT agents. Among all participants, 23% of individuals smoked cigarettes within 2 months of completing the baseline interview and first module. Of those that quit, 50% used Chantix and 70% attended counseling sessions with the health educators. Of the participants who did not quit, 21 participants cut down on the amount they smoked with almost 81% of them cutting the number of cigarettes they smoked in half.

Conclusion. A multidisciplinary intervention consisting of assessment, counseling, and pharmacologic therapy and/or NRT can improve cessation in PLWH that smoke (23%). Future studies are needed to confirm these results among larger populations.

Disclosures. All authors: No reported disclosures.

339. Implementing a Smoking Cessation Intervention Among People Living With HIV (PLWH)
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Session: 44. HIV Complications: Cardiovascular, Metabolic, and Other Complications
Thursday, October 3, 2019: 12:15 PM

Background. PLWH who smoke have increased mortality and decreased quality of life. Our clinic is a large, urban academic center that cares for over 1,600 PLWH with a large proportion of smokers (recent estimates 61% current, 16% former). Our goal was to assess the outcomes of our new clinic-wide smoking cessation intervention. We hypothesize that our intervention will increase smoking cessation among our patients.

Methods. A multidisciplinary committee met to design a cessation pathway to increase smoking cessation in the clinic. The pathway began with an assessment of smoking during triage. The provider then discussed cessation during the visit and patients who were ready to quit were referred to a health educator. Upon referral, participants enrolled in the smoking cessation trust (SCT) which is a free program for patients who have been smoking before 1988 (N = 33) and provides NRT. Participants who were born after 1980 (N = 10) received their NRT through the Ryan White Formulary. The intervention consisted of a baseline interview and 5 modules. Participants received their NRT or pharmacologic agent prior to the intervention. Participants (N = 43) were PLWH from our clinic who smoke and were referred from May 1, 2018 through March 1, 2019.

Results. Participants were 79% black, 74% male and on average were 47 years old. Among participants: 21 participants met with a health educator for the initial interview and participated in the intervention, while 22 only met with the health educator for an introductory interview to determine which pharmacologic/NRT agent would work best for them. Of the 43 participants, 30 participants received pharmacologic NRT agents. Among all participants, 23% of individuals smoked cigarettes within 2 months of completing the baseline interview and first module. Of those that quit, 50% used Chantix and 70% attended counseling sessions with the health educators. Of the participants who did not quit, 21 participants cut down on the amount they smoked with almost 81% of them cutting the number of cigarettes they smoked in half.

Conclusion. A multidisciplinary intervention consisting of assessment, counseling, and pharmacologic therapy and/or NRT can improve cessation in PLWH who smoke (23%). Future studies are needed to confirm these results among larger populations.

Disclosures. All authors: No reported disclosures.

340. Prevalence of Type II Diabetes Mellitus Among Patients Living with HIV in the United States
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Session: 44. HIV Complications: Cardiovascular, Metabolic, and Other Complications
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Background. An aging HIV-infected population has growing recognition for its increasing prevalence of type 2 diabetes mellitus (T2DM). Most studies of T2DM prevalence among patients living with HIV involve selected samples and/or small cohorts which limit generalizability. We sought to evaluate the overall prevalence of T2DM among patients living with HIV in the United States as well as within specific demographic subgroups.

Methods. A cross-sectional analysis was performed using a large, multi-institutional database (Explorys), where clinical information across 27 healthcare networks are matched and standardized to create longitudinal records for each unique patient. At present, the database contains 63 million unique lives, representing 18% of the population across all 4 census regions of the United States. Patients with all types of insurance as well as those who are self-pay are represented. The analysis included adult patients with an active status in the database during April 1, 2014- April 2019 who, not missing data on age, gender, race, and body mass index. The Systematized Nomenclature of Medicine—Clinical Terms (SNOMED-CT) of "HIV and Immunodeficiency Virus", "diabetes mellitus type 2", "disorder due to type 2 diabetes mellitus," and "Type II diabetes mellitus uncontrolled" were used to identify patients with HIV and T2DM.

Results. We identified 90,900 patients with HIV. The overall prevalence of T2DM among patients with HIV was 22.1% (20,080/90,900) compared with 14.9% (2,679,490/17,946,580) in the general population. In subgroup analysis, the prevalence of T2DM was highest among patients with HIV who were female, older, other race, obese, hypertensive, hyperlipidemic, smokers, alcoholics, and those with a history of hepatitis C infection. Patients with no exposure to antiretroviral therapy (ART) had higher prevalence of T2DM than those with exposure (24.9% vs. 17.6%).

Conclusion. In this US population-based study, we found 1 in 5 people living with HIV had T2DM. In addition, we observed that HIV patients with T2DM may not depend on chronic ART exposure. Physicians caring for patients with HIV should be aware of the association and should monitor for signs and symptoms of T2DM.