

toxicity, drug-to-drug interactions, and noncompliance. The objectives of this study were to describe clinical characteristics and treatment history of currently treated HIV-1 patients in commercial and Medicare Advantage health plans in the United States.

**Methods.** A retrospective cohort study of adults ( $\geq 18$  years) with  $\geq 1$  ARV pharmacy claim from January 1, 2012 to March 31, 2017 and  $\geq 1$  HIV-1 diagnosis code in the Optum Research Database. A claims-based algorithm was used to identify lines of therapy (LOT), including the most recent LOT (LOT0) and previous LOTs dating back to January 1, 2007. Subjects were continuously enrolled 12 months prior to the start of LOT0 (baseline) and comorbidities assessed. Treatment-naïve subjects were defined as having LOT0 only during baseline, while subjects with  $>1$  LOT were defined as treatment-experienced. Study variables were summarized descriptively and results were stratified by treatment status, insurance type, and age groups.

**Results.** There were 18,699 eligible subjects, of whom 27% were treatment naïve. Average age was 47 years ( $\pm 12$ ), 84% were male, 51% Caucasian, and 82% had commercial insurance. Common baseline comorbidities among subjects were hyperlipidemia (41%), cardiovascular disease (41%), hypertension (34%), and depression (17%). Most comorbidities increased with age except for depression and anxiety, which were mostly constant across age groups. Among all subjects, the average cumulative proportion of days covered with an ARV was 85%. Average total pills per day, ARV and non-ARV, increased with age corresponding with Medicare subjects having 9.2 and commercial subjects having 3.7 pills per day.

**Conclusion.** As ARV regimens have improved the life expectancy for patients with HIV, management of comorbidities and overall medication burden has become increasingly complex. HIV treatment guidelines suggest streamlined ARV regimens may be considered as patient complexity evolves over time to decrease disease burden taking into account co-morbidities, drug-drug interactions and total pill burden.

**Disclosures.** J. Priest, ViiV Healthcare: Employee, Salary. T. Burton, Optum: Consultant and Employee, Salary. AstraZeneca: Research Contractor, Consulting fee. C. Blauer-Peterson, Optum: Employee, Salary. ViiV: Research Contractor, Consulting fee. K. Andrade, Optum: Employee, Salary. ViiV: Research Contractor, Consulting fee. A. Oglesby, ViiV Healthcare: Employee and Shareholder, Salary.

#### 589. Assessment of an Antiretroviral Therapy Policy in Patients with Human Immunodeficiency Virus at a Large Academic Medical Center

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**Session:** 62. HIV: Management and Clinical Outcomes

*Thursday, October 4, 2018: 12:30 PM*

**Background.** Accurate medication reconciliation upon hospital admission is crucial for patients with human immunodeficiency virus (HIV) to ensure continuation of appropriate antiretroviral therapy (ART). An ART policy was implemented at our institution which restricted ART ordering to infectious diseases physicians to increase appropriate ART prescribing following admission. The purpose of this study was to evaluate the effectiveness of the HIV medication restriction policy on the appropriateness of ART re-ordering upon admission.

**Methods.** This was a single-center, retrospective chart review conducted from July 2014 to June 2017 as a pre-post intervention study. The pre-intervention group included adult patients with HIV who received one or more doses of ART prior to implementation of the HIV medication restriction policy. The post-intervention group included adult patients with HIV who received one or more doses of ART after implementation of the policy. Exclusion criteria included patients who received ART for hepatitis B infection or prophylaxis, HIV post-exposure prophylaxis, or patients receiving a first dose of ART for occupational exposure. Home ART medication regimen and inpatient ART medication regimen were evaluated. The primary endpoint was to compare the rate of appropriate medication reconciliations completed before and after implementation of the HIV medication restriction policy. The secondary endpoint was to compare the time to restart of ART following admission.

**Results.** A total of 115 patients were included in this study. Appropriate medication reconciliation increased from 76% to 100% after implementation of the policy ( $P = 0.014$ ). However, the mean time to re-initiation of ART increased from 7.9 hours to 14.5 hours after implementation of the policy ( $P = 0.01$ ). ART regimens were restarted within 24 hours of admission in 96.7% of the pre-HIV policy group vs. 84% in the post-HIV policy group ( $P = 0.02$ ).

**Conclusion.** The mean time to re-initiation of ART increased after implementation of the HIV policy. However, restriction of ART ordering to infectious diseases physicians significantly increased the rate of appropriate medication reconciliation for patients with HIV. In light of these results, a procedure will be established to ensure the timely re-initiation of ART.

**Disclosures.** All authors: No reported disclosures.

#### 590. Tackling HIV/AIDS in Brooklyn New York Within a Network of Federally Qualified Health Centers

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**Session:** 62. HIV: Management and Clinical Outcomes

*Thursday, October 4, 2018: 12:30 PM*

**Background.** As of June 30, 2016, 122,945 New Yorkers had been diagnosed and were known to be living with HIV/AIDS. The Family Health Centers at NYU Langone (FHC) has for the past 27 years continued to build an evolving network of services which aim to tackle the epidemic through the principles of hot-spotting, elevating cultural competency, and applying the continuum of care model for the communities we serve.

**Methods.** FHC's network covers a service area of six NYC Community Districts in Brooklyn. Utilizing best practices, FHC has built a network which addresses the cascade of care through EMR embedded screening, education on cultural competencies in the LGBTQ community, dedicated health navigators, and a comprehensive panel of providers to deal with biopsychosocial factors that prohibit access to healthcare delivery. Utilizing automated referral pathways within the EMR along with a daily review of all testing results performed within the network, care coordination teams and patient navigators are able to identify patients. Dedicated case management teams are then assigned to locate patients and link patients to treatment and assist in overcoming care access barriers.

**Results.** Within the FHC catchment area the incidence of new HIV infections was heavily concentrated among poor minorities. Among the FHC population, minority races comprised 79.3% of those PLWHA, with 58% of the population having the risk factor of MSM activity. For those patients who fall under  $>20\%$  below Federal poverty level, New York's HIV/AIDS death rate is at 74.7%. Despite national and regional trends, the FHC over the last 3 years has managed to not only to provide greater opportunities for access to care, but has increased the rate of viral load suppression among patients served (393 patients in 2014 to 416 patients in 2016 and VLRS of 92.4-95.6%).

**Conclusion.** HIV/AIDS prevalence is still characterized by wide gaps in health-care disparities and inequality, particularly among those communities who are poor, LGBTQ and/or minority background. By building an infrastructure that follows best practices in a culturally sensitive context, the FHC is able to provide greater access to care in a dwindling population while creating a medical home for quality care regardless of payer base, race, or gender.

**Disclosures.** All authors: No reported disclosures.

#### 591. Impact of an Antimicrobial Stewardship (ASP) Initiative Evaluating Antiretroviral Regimens for HIV-Positive Patients

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**Session:** 62. HIV: Management and Clinical Outcomes

*Thursday, October 4, 2018: 12:30 PM*

**Background.** Advancements in the development of antiretrovirals (ARVs) have led to reduced HIV-related morbidity and mortality and improved patient adherence. Despite the simplicity of current ARV regimens, medication errors still frequently occur. This study evaluated the impact of an antimicrobial stewardship (ASP) team in identifying and reducing ARV medication errors.

**Methods.** A retrospective study was conducted to evaluate ARV medication errors pre- and post-implementation of an ASP initiative in HIV-positive patients admitted between July 2016 and December 2017. The ASP team consisted of a PGY2 infectious diseases (ID) pharmacy resident and an ID clinical specialist. The ASP intervention occurred upon admission and consisted of a comprehensive ARV review to assess for dosing, drug-drug interaction, and completeness of regimen. The following endpoints were assessed: incidence of errors, classification of errors, and the number of errors detected/corrected.

**Results.** Three hundred and fifty-six patients were included in the analysis; 153 patients in the pre-intervention group and 203 patients in the post-intervention group. A total of 243 errors were identified in 175 patients; 119 errors ( $n = 78$ ) in the pre-intervention group and 124 ( $n = 97$ ) in the post-intervention group. The overall number of errors were stratified by classification: dosing (42/243; 17%), drug-drug interaction (159/243; 66%), and completeness of regimen (42/243; 17%). Drug-drug interactions involving integrase inhibitors and cations were the most frequently occurring medication error in both cohorts. There was a statistically significant difference in errors detected, and subsequently corrected in the pre-intervention group compared with the post-intervention group (12/119 vs. 85/124,  $P < 0.001$ ). Of the 39 errors that were missed by the ASP team, six were not detected, 12 occurred post-review, and 21 were not accepted by the primary team.

**Conclusion.** Pharmacists play a vital role in mitigating errors in HIV-infected patients upon hospital admission. However, continuous review throughout the hospital course and at discharge, as well as education of all practitioners, is critical to preventing propagation of errors.

**Disclosures.** All authors: No reported disclosures.

#### 592. Determining the Impact of an Antiretroviral Stewardship Team on the Care of HIV-Infected Patients Admitted to an Academic Research Institution

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**Session:** 62. HIV: Management and Clinical Outcomes

*Thursday, October 4, 2018: 12:30 PM*

**Background.** The American Society of Health-System Pharmacists and The American Academy of HIV Medicine have established guidelines on the pharmacist's