

9%) or coverage by the state's ADAP program (13% vs. 2%;  $P < 0.001$  for insurance differences); "true" vs. "virtual" LTC patients more often received Ryan White case management services (69% vs. 15%,  $P < 0.001$ ). More "virtual" vs. "true" LTC patients have subsequently returned to care (47% vs. 33%,  $P = 0.03$ ). Active insurance most strongly associated with subsequent return to care on logistic regression.

**Conclusion.** We found that LTC patients whom had ongoing lab monitoring during their gap in medical visits were more likely to have private insurance or ADAP coverage, while being less likely to have received Ryan White case management services. Prospectively identifying LTC patients more likely to have favorable outcomes may free up re-engagement resources for use with higher need patients.

**Disclosures.** R. Lubelchek, Viiv: Scientific Advisor, Salary.

### 579. Acceptability of Home-Based Medical Assessment to Facilitate Re-engagement of HIV-Positive Out-of-Care Persons into Clinical Care, New York City

Chi-Chi Udeagu, MPH<sup>1</sup>; Anthony Romano, MPH<sup>2</sup>; Kavita Misra, PhD, MPH<sup>2</sup> and Demetre Daskalakis, MD, MPH<sup>3</sup>; <sup>1</sup>HIV/AIDS Prevention, New York City Department of Health and Mental Hygiene, Queens, New York, <sup>2</sup>New York City Department of Health and Mental Hygiene, Queens, New York, <sup>3</sup>New York University School of Medicine, New York, New York

**Session:** 61. HIV: Linkage to Care and Viral Suppression in the Care Cascade  
Thursday, October 4, 2018: 12:30 PM

**Background.** For people living with HIV (PLWH), retention in care and antiretroviral treatment improve individual health and curb further HIV transmission. Since 2007, New York City Health Department Disease Intervention Specialists (DIS) make contact attempts to re-engage PLWH presumed to be out-of-care (OOC) because they lack HIV registry report of viral load or CD4 cell count  $\geq 9$  months from selection date. Each year, 28–50% of OOC-PLWH refuse assistance from DIS to re-engage in HIV care. In 2017, we assessed the interest of OOC-PLWH in a medical home visit to facilitate their re-engagement in HIV care. Home visits could help DIS circumvent barriers to care re-engagement: privacy issues, impaired mobility and chronic health conditions, and by providing discreet and accessible medical care.

**Methods.** From January to December 2017, DIS interviewed 847 OOC-PLWH and administered a questionnaire to ascertain their interest in a home visit to evaluate their general and HIV-related health status (e.g. physical and HIV evaluation, health education, sexually transmitted diseases [STD] and hepatitis C [HCV] screening).

**Results.** Of the 847 OOC-PLWH interviewed, 111 (13%) were interested in home visits. The majority of participants were male (69%), non-Hispanic black (60%) and had a median age of 47 years at intervention (range: 19–88). Thirty-eight percent were men who had sex with men. Higher proportions of those interested accepted care appointments (93% vs. 73%) and kept a clinic appointment (78% vs. 61%). Compared with non-Hispanic blacks, Hispanics were less likely to be interested in home visits (aOR: 0.59; 95% CI: 0.36–0.96). Compared with persons who accepted an HIV care appointment, persons who did not were significantly more likely to express interest in home visits (aOR: 4.18; 95% CI: 1.62–10.78). Those expressing general interest had specific interest in assessments for HIV-related blood tests (85%), medication (84%) or education (78%), as well as general health evaluation and screening for HCV (68%) or STD (64%).

**Conclusion.** Our assessment suggests that medical home visits could improve re-engagement rates among OOC-PLWH. Lower interest among Hispanic patients suggests that future efforts should be sensitive to community needs and concerns.

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

### 580. Key Factors for Treatment Changes Within 1 Year After Starting ART in the German ClinSurv Cohort: Between 2005 and 2014

Melanie Stecher, MSc. Public Health<sup>1,2</sup>; Laura Hamacher, MD<sup>1</sup>; Martin Platten, MD<sup>3</sup>; Philipp Schommers, MD<sup>1,2</sup>; Clara Lehmann, PD Dr. med.<sup>1,2</sup>; Leona Dold, MD<sup>4</sup>; Christian Kollan, Data Manager<sup>3</sup>; Daniel Schmidt, MSc<sup>5</sup>; Barbara Günsenheimer-Bartmeyer, MD<sup>6</sup>; Janne Vehreschild, Prof. Dr. med.<sup>1,2</sup> and ClinSurv Study Group; <sup>1</sup>University Hospital of Cologne, Cologne, Germany, <sup>2</sup>German Center for Infection Research, Cologne-Bonn, Cologne, Germany, <sup>3</sup>Laboratory Wisplinghoff, Cologne, Germany, <sup>4</sup>University Hospital Bonn, Bonn, Germany, <sup>5</sup>Robert Koch Institut, Berli, Germany, <sup>6</sup>Robert Koch Institut, Berlin, Germany

**Session:** 62. HIV: Management and Clinical Outcomes  
Thursday, October 4, 2018: 12:30 PM

**Background.** Initiation of combined antiretroviral therapy (cART) has markedly increased survival and quality of life in HIV-infected patients. With the advent of new treatment options, including an increasing number of single-tablets, the durability of first-line ART regimens is developing.

**Methods.** We used data from the prospective multicenter German Clinical Surveillance of HIV Disease (ClinSurv) cohort of the Robert-Koch-Institute. Time to event was calculated as time between initiation of first-line cART and therapy change. We used a Cox model to assess predictors of treatment change 1 year after starting cART.

**Results.** We included 6,894 patients who initiated ART between 2005 and 2014. The sample population was predominantly men (79%) with German origin (69.8%), of which 49.6% were reporting sex with men (MSM) as main risk factor. Median age (IQR) was 38 (31–46) years. The most frequently treated combinations were 2NRTI/PIr (48.1%) and 2NRTI/1NNRTI (42.2%), 2NRTI/1II (5.2%). 22.6% patients changed their first-line treatment within 1 year. Median (IQR) length between first intake and stop of the regime was 105 (35–214) days, which did not change significantly between 2005 (108; 38–217) and 2014 (128; 74–200) ( $P = 0.28$ ). Most common documented causes were side effects of drugs 418 (44.0%) and non-adherence 173 (18.2%). In the Cox model (Figure 1), we

identified numerous covariates associated with discontinuation of the first-line regime. A 2NRTI/1NNRTI regime was associated with higher rates (hazard ratio [HR] 1.28, 95% CI 1.06–1.55) and a 2NRTI/1II regime with lower rates (HR 0.34, 95% CI 0.23–0.51) of treatment modification (ref.: 2NRTI/1PIr). The HR increased markedly with the amount of daily-administered tablets from HR 2.15, 95% CI 1.48–3.11 (2–3 tablets) to HR 3.98, 95% CI 2.16–7.31 (10 tablets) (ref.: one tablet). We observed an association with a baseline viral load (VL) of  $>100$  copies/mL (HR 0.65, 95% CI 0.53–0.81) and  $>100,000$  copies/mL (HR 0.68, 95% CI 0.54–0.85) (ref.: VL  $> 1$  Mio. copies/mL).

**Conclusion.** Our analysis revealed, that side effects of drugs, the number of tablets per day and the VL at baseline are significantly associated with treatment change within the first year. A first-line regime with 2NRTI/1II seems to improve the adherence to the initial regime significantly.

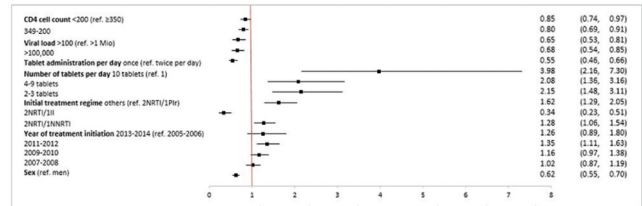


Figure 1: Hazard ratios (HR) and 95% confidence intervals (CI) associated with starting ART from the final cox model adjusted for gender, age, time of ART initiation, tablets per day, tablet administration per day, AIDS, Viral load and CD4 cell count at time of ART initiation, risk group, ART regime and country of origin.

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

### 581. Do Comorbidities and Polypharmacy Lead to Virologic Failure in All Populations Living with HIV?

Humberto Jimenez, PharmD, BCPS, AAHIVP<sup>1,2</sup>; Ty Stevens, PharmD<sup>3</sup> and Jin Suh, MD<sup>4,5</sup>; <sup>1</sup>Pharmacy Department, St. Joseph's University Medical Center, Paterson, New Jersey; <sup>2</sup>Ernest Mario School of Pharmacy, Piscataway, New Jersey; <sup>3</sup>Pharmacy Department, St. Joseph's University Medical Center, 703 Main Street, New Jersey; <sup>4</sup>Division of Infectious Diseases, St. Joseph's University Medical Center, Paterson, New Jersey; <sup>5</sup>New York Medical College, Valhalla, New York

**Session:** 62. HIV: Management and Clinical Outcomes  
Thursday, October 4, 2018: 12:30 PM

**Background.** As HIV antiretroviral therapy (ART) becomes increasingly more simplified and effective, many patients living with HIV benefit with reduced ART pill burden and longer life expectancy. As this patient population ages, the prevalence of comorbidities increases the likelihood of polypharmacy. This study assessed if comorbidities and their associated polypharmacy affect the success of HIV management in our patients.

**Methods.** A retrospective analysis of patients living with HIV receiving care at an urban clinic in New Jersey was performed. Eligible patients were  $\geq 18$  years old, had  $\geq 2$  visits in 2017 with laboratory data  $\geq 24$  weeks apart. These patients were divided into three arms: those without any comorbid conditions, a single comorbidity, and patients with multiple comorbidities. The primary endpoints were to determine the effect of comorbid conditions and polypharmacy on viral suppression (defined as HIV RNA  $< 20$  copies/mL). Secondary assessments accounted for the impact of age and race/ethnicity on HIV management.

**Results.** There were 318 patients included in the analysis: 156 with multiple comorbidities, 76 with one, and 86 without any. Most patients were male (58%) and the mean age was 49 years old. The population was 52% Black, 32% Hispanic, and 15% White. Most patients (72%) had undetectable virus, and 92% had a CD4 count  $> 200$  cells/mm<sup>3</sup>. Patients with multiple comorbidities were more likely to be virologically suppressed than patients with one comorbidity (80% vs. 59%,  $P = 0.0014$ ) and those without (80% vs. 67%,  $P = 0.0413$ ), despite having a higher pill burden per day (7.0 vs. 3.7 vs. 2.2,  $P = 0.0001$ ). Although age was not an independent predictor of viral suppression, patients with multiple comorbidities were older (55 yo) than those with one comorbidity (48 yo) and without any (41 yo) (both  $P < 0.0001$ ). Hypertension (39%), diabetes mellitus (16%), dyslipidemia (31%), and psychiatric disorders (14%) were the most common comorbidities. Patients with hypertension were more likely to be virologically suppressed than those without (80% vs. 67%,  $P = 0.0229$ ).

**Conclusion.** Patients with multiple comorbidities and a greater daily pill burden at our clinic were more likely to achieve virologic suppression. Multiple comorbidities and polypharmacy were not major drivers of virologic failure in our clinic cohort.

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