Conclusion. It is feasible to create statewide treatment cascades for HIV/HCV co-infected individuals. SVR rates improved from 36.5% to 68.6% with the use of a more recent HCV surveillance timeline. Contributing factors include: 2016 HCV case definition change (increased HCV PCR testing); electronic lab interface with CTEDSS being able to record negative PCRs in 2018; enhanced DAA availability and implementation. Future studies should adopt this approach which more accurately represents the HCV care status of the current co-infected population.

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933. Cured vs. Not Yet Treated: Population Differences for HIV/HCV Co-infected Patients Navigating the HCV Care Cascade in 11 Connecticut Clinics
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Session: P-44: HIV: Complications and Special Populations

Background. Hepatitis C (HCV) care cascades for persons with HIV/HCV co-infection are hampered by incomplete HCV surveillance data, lack of standardized matching algorithms, and incomplete ability to determine HCV treatment status from surveillance alone. However, client-level data from individual clinics can be combined into multi-site cascades to assess progress toward micro-elimination goals. To achieve these goals, characterization of treatment gaps is crucial. Looking at trends in 11 HIV clinics, we examine correlates of not entering/initiating HCV therapy.

Methods. We established a partnership with CT Dept. of Public Health and 11 HIV clinics through a HRSA SPNS grant (047). Lists of HIV/HCV co-infected individuals obtaining care from these clinics from 1/2009-9/2018 were created using data from HIV (eHARS) and HCV (CTEDSS) surveillance, individual clinic rosters and a validated matching algorithm. Clinic personnel reviewed these lists to determine who were treatment eligible (TE) and their current HCV treatment status (e.g. treatment initiated, SVR documented, untreated but in clinical care). Clinic lists were updated regularly to reflect changes in overall patient status (e.g. deceased, relocated, transient). Treatment cascade for all surveillance entries with labs from 1/1/2016 to 1/1/2020 were recorded with labs from 1/1/2016 to 1/1/2020.

Results. Of 7265 patients receiving HIV-related services, 2117 matched to HCV surveillance, representing 1496 unique patients. As of 6/1/2020, 821 patients (55%) completed treatment, 584 (71%) achieved SVR. Of the TE group, 77 (9%) were treatment ineligible (TE), 727 (89% of TE) were in active care, 630 (77%) initiated treatment, 620 (75%) were TE, 727 (89% of TE) were in active care, 630 (77%) initiated treatment, 620 (77%) achieved SVR. Of the TE group, 77 (9%) were treatment ineligible (TE), 727 (89% of TE) were in active care, 630 (77%) initiated treatment, 620 (75%) achieved SVR.

Conclusion. In Arkansas, BDG positivity is not a reliable marker of PJP because it cannot distinguish between PJP and PDH. Attributing an elevated BDG to PJP without additional evaluation risks misdiagnosis. The mean BDG level was significantly higher in the PJP group compared to those with PDH and respiratory symptoms (P<0.002). However, values overlapped substantially, and BDG positivity was not significantly more frequent in the PJP group (P=0.536).

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934. Diagnostic Utility of Blood (1- > 3)-β-D-Glucan Testing in Patients with HIV in Arkansas
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Session: P-44: HIV: Complications and Special Populations

Background. Blood (1- > 3)-β-D-Glucan (BDG) is a sensitive marker for Pneumocystis jiroveci pneumonia (PJP) in patients with AIDS (PWA). However, other fungal infections, including progressive disseminated histoplasmosis (PDH), cause high levels of BDG. At our hospital, PDH is a common diagnosis in PWA with fever and respiratory complaints, making it difficult to differentiate PJP from PDH based on clinical features alone. The objective of this study was to assess BDG as a diagnostic test for PJP in Arkansas where histoplasmosis is endemic.

Methods. We performed a retrospective review of patients with confirmed PJP and confirmed PDH who had BDG testing between 2014-2020. Positive cytological or histological evidence of P. jiroveci in bronchoalveolar lavage (BAL) or lung biopsy, or positive PCR on sputum or BAL confirmed PJP. Identification of Histoplasma capsulatum in culture of blood or other normally sterile site, histology showing typical yeast forms, or a positive urine H. capsulatum antigen assay (MiraVista Diagnostics) confirmed PDH. The Pungentia Assay determined BDG levels as follows: negative, < 60 pg/mL; indeterminate, 60-79 pg/mL; and positive > 80 pg/mL. Values below 31 pg/mL and those above 500 pg/mL were censored at 30 and 500, respectively. Respiratory symptoms were defined as the presence of cough, shortness of breath, or dyspnea on exertion.

Results. 53 episodes of PJP occurred in 46 patients. 42 were accompanied by a BDG result. Of these, 38 (90%) were positive; 3 (7%) were negative; and 1 (2%) was indeterminate. 44 (83%) of the PDH episodes were associated with respiratory symptoms. 36 of these had a BDG result. 34 (94%) were positive; 1 (3%) was negative; and 1 (3%) was indeterminate. 44 episodes of PJP occurred in 40 patients. All had a BDG result. 43 (98%) were positive. 10 (23%) episodes of PJP were accompanied by a co-occurring infection.

Conclusion. In Arkansas, BDG positivity is not a reliable marker of PJP because it cannot distinguish between PJP and PDH. Attributing an elevated BDG to PJP without additional evaluation risks misdiagnosis.

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935. Effect of Tamsulosin in People with HIV with and without Dorsocervical Fat: Post Hoc Analysis of Phase III Double Blind Placebo Control Trial
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Session: P-44: HIV: Complications and Special Populations

Background. Tamsulosin is a long-acting 5-alpha reductase inhibitor that reduces the size of the prostatic lateral lobes in men with benign prostate hyperplasia. A phase III randomized placebo-controlled double-blind trial showed tamsulosin was superior to placebo in reducing symptoms of lower urinary tract obstruction in male subjects with benign prostatic hyperplasia. This study included 1015 male participants with histologically confirmed HIV infection (CD4 count < 350 cells/mm$^3$) and confirmed HIV RNA < 10,000 copies/mL with a mean age of 53 years and mean baseline prostate volume of 47 mL. Tamsulosin and placebo were given for 12 weeks. Of the participants, 287 received tamsulosin and 287 received placebo. In this study, we evaluated the effect of tamsulosin on Dorsocervical Fat (DCF).

Methods. We performed a post-hoc analysis of data collected during the phase III trial. Participants were randomly assigned to receive tamsulosin or placebo. The primary outcome measure was change from baseline in prostate volume. Secondary outcomes included changes in Dorsocervical Fat (DCF) volume, defined as the volume of fat in the area between the trapezius and the mid-pectoral muscles. Dorsocervical fat was measured using 3-Dimensional computed tomography (3D-CT) of the neck. Dorsocervical fat was measured at baseline and at the end of the study (12 weeks).

Results. In the tamsulosin group, there was a significant decrease in mean Dorsocervical Fat (DCF) volume from baseline to week 12 (-1.1 mL, p=0.02). In the placebo group, there was no significant change in mean Dorsocervical Fat (DCF) volume from baseline to week 12 (0.1 mL, p=0.84).

Conclusion. Tamsulosin significantly reduced Dorsocervical Fat (DCF) volume in male participants with HIV and confirmed HIV RNA < 10,000 copies/mL. This finding suggests that tamsulosin may have a beneficial effect on Dorsocervical Fat (DCF) in this population. Further research is needed to determine the clinical significance of this finding.

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This data demonstrates that tesamorelin is effective at reducing VAT at week 26 in both groups. There was a decrease in VAT and also an improvement in their WC at week 26 in patients with and without DC fat. Most patients in both groups had lipoatrophy. Metabolic and anthropometric parameters were measured at week 26 in patients with and without DC fat deposition. Results are reported for patients with and without dorso-cervical (DC) fat deposition.

### Results

Demographic characteristics of responders at week 26 are shown according to presence or absence of DC fat (Table 1). At week 26, on average, the patients with DC fat deposition had higher BMI and waist circumference (WC) than the group without DC fat. Most patients in both groups had lipodystrophy. Metabolic and anthropometric parameters were measured at week 26 in patients with and without DC fat (Table 2). There was a decrease in VAT and also an improvement in their WC at week 26 in both groups.

#### Table 1: Baseline Characteristics of Tesamorelin Responder Subjects at Week 26, by Dorso-Cervical Status

| Variable                        | With Dorso-Cervical Fat (N=88) | Without Dorso-Cervical Fat (N=144) | P value |
|---------------------------------|---------------------------------|------------------------------------|---------|
| Sex, n (%)                      |                                 |                                    | 0.37    |
| Male                            | 75 (85.2)                       | 128 (88.9)                         |         |
| Age (years)                     |                                 |                                    | 0.63    |
| N                               | 88                              | 144                                |         |
| Mean (SD)                       | 48.0 (6.8)                      | 47.4 (7.1)                         | 0.50    |
| Race, n (%)                     |                                 |                                    |         |
| Asian                           | 0 (0)                           | 9 (0.7)                            |         |
| Black or African American       | 11 (12.5)                       | 12 (8.3)                           |         |
| Hispanic                        | 4 (4.5)                         | 12 (8.3)                           |         |
| Other                           | 1 (1.1)                         | 2 (1.4)                            |         |
| White                           | 72 (81.8)                       | 117 (81.3)                         |         |
| ART as Baseline, n (%)          |                                 |                                    | 0.86    |
| NRT1+NON NRT1 (n)               | 30 (34.1)                       | 49 (34.0)                          |         |
| NRT1+NNRTI (n)                  | 10 (11.4)                       | 11 (7.6)                           |         |
| NRT1+P=NON NRT1 (n)             | 40 (45.5)                       | 71 (49.3)                          |         |
| NRT1 Alone (n)                  | 3 (3.4)                         | 6 (4.2)                            |         |
| Other                           | 5 (5.7)                         | 7 (4.9)                            |         |
| CD4 Cell count (cells/mm³)      |                                 |                                    | 0.071   |
| n                               | 88                              | 144                                |         |
| Mean (SD)                       | 658.4 (296.69)                  | 578.4 (279.85)                     |         |
| Viral Load, n (%)               |                                 |                                    | 0.070   |
| Undetectable                    | 72 (81.8)                       | 108 (75.0)                         |         |
| ≤ 400                           | 11 (12.5)                       | 17 (11.8)                          |         |
| > 400                           | 5 (5.7)                         | 19 (13.2)                          |         |
| BMI                             |                                 |                                    | <0.001  |
| n                               | 88                              | 144                                |         |
| Mean (SD)                       | 29.683 (4.1724)                 | 27.681 (3.2498)                    | 0.16    |
| Presence of Lipoatrophy, n (%)  |                                 |                                    |         |
| Yes                             | 70 (78.5)                       | 101 (70.1)                         | 0.002   |
| Waist Circumference (cm)        |                                 |                                    |         |
| N                               | 88                              | 144                                |         |
| Mean (SD)                       | 105.99 (9.95)                   | 102.32 (7.39)                      |         |
| VAT (cm³)                       |                                 |                                    | 0.57    |
| N                               | 88                              | 144                                |         |
| Mean (SD)                       | 189.68 (87.04)                  | 184.88 (78.59)                     | 0.32    |
| IGF-1 level (ng/mL)             |                                 |                                    |         |
| N                               | 86                              | 143                                |         |
| Mean (SD)                       | 147.50 (62.22)                  | 154.10 (60.43)                     |         |

### Table 2: Change in Abdominal Adiposity, Insulin-Like Growth Factor-1 Levels, and Metabolic Parameters Between Baseline and Week 26 Among Tesamorelin Responders

**Conclusion.** This data demonstrates that tesamorelin is effective at reducing VAT in both patients with and without DC fat. The medication was well tolerated without significant changes to metabolic based measurements. Treatment of excessive VAT with tesamorelin has seemingly positive results in fat reduction in patients with or without DC fat deposition and our study contributes to the growing literature.

**Disclosures.** Marilyn de Chantal, PhD, Theratechnologies Inc (Employee) Pedro Mesquita, PhD, Theratechnologies, Inc. (Employee) Judith A. Aberg, MD, Theratechnology (Consultant)

### 936. Evaluating the Impact of Polypharmacy on Virologic Success in People with HIV

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**Session:** P-44. HIV: Complications and Special Populations

#### Background

As people with HIV (PWH) have experienced reductions in antiretroviral pill burden, there has been an increase in medications to manage non-AIDS-related co-morbidities. Previous studies have linked virologic failure to an increased pill burden. This study assessed whether polypharmacy and other variables affect success of HIV management in our population.

**Methods.** A retrospective, cross-sectional analysis of PWH receiving care at a Ryan White-funded clinic in New Jersey was performed. Eligible patients were ≥18 years old, had ≥2 visits in 2019 and were receiving antiretroviral therapy (ART). The primary endpoints were to determine the effect polypharmacy (defined as 5 or more non-ART pills per day) on virologic response rates (HIV RNA < 200 copies/mL). Secondary endpoints accounted for the impact of age, gender, race/ethnicity, HIV transmission risk factor, and AIDS diagnosis on virologic response. A descriptive analysis of comorbidities and medication classes was also completed. Logistic regression, chi square and student’s t test were used for statistical analysis.

**Results.** 964 patients were included in the analysis, with 355 (37%) meeting the criteria for polypharmacy. Most patients were male (60%) and the mean age was 49 years of age. The racial/ethnic breakdown was 46% Hispanic, 45% Black and 8% White. Polypharmacy was associated with higher rates of virologic success compared to those with a lower pill burden: 94% vs 86% had an HIV RNA < 200 copies/mL (P=0.0003), respectively. ART pill burden was statistically, but not clinically higher among Hispanics and Whites in comparison to Black patients (OR 2.2, CI 1.4-3.5 and 3.0, CI 1.1-8.2). Patients with an AIDS diagnosis had a higher rate of virologic success compared to those with a normal diagnosis (OR 1.5, CI 1.2-1.9).

**Conclusion.** Patients with polypharmacy were more likely to achieve virologic success than patients with a low pill burden in our population.

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