

Conclusion. In the complex environment of a pediatric HIV specialty clinic, most PLWH mounted Ab responses to 4v HPV that were durable. H18 was least immunogenic. Patients with higher HIV VL were less likely to seroconvert for all types and were more likely to sero-revert.

Disclosures. All Authors: No reported disclosures

927. Antiretroviral Laboratory Monitoring and Implications for HIV Clinical Care in the Era of COVID-19 and Beyond

Lori E. Fantry, MD, MPH¹; Lawrence York, PharmD¹; Julia Fisher, PhD²; Jessica August, MD³; Jose Marquez, MD¹; Kristen Ellis, PharmD⁴; Lakshmi Malladi, BS¹; Ashwini Kaveti, BS¹; Marine Khachatryan, MS¹; Marissa Paz, BS¹; Matthew Adams, DO¹; Edward Bedrick, PhD⁴; ¹University of Arizona, Tucson, Arizona; ²University of Arizona Health Science, Tucson, Arizona; ³Santa Rosa Kaiser Hospital, Santa Rosa, California; ⁴University of Arizona Health Science Center, Tucson, Arizona

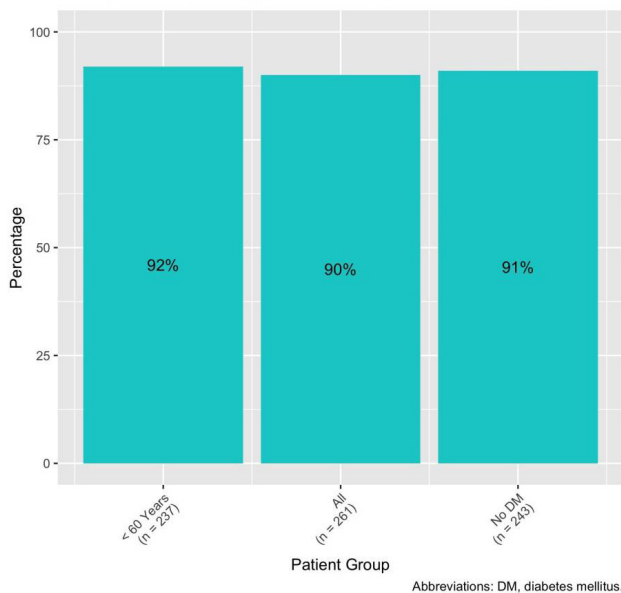
Session: P-44. HIV: Complications and Special Populations

Background. In the era of COVID-19, providers are delaying laboratory testing in people with HIV (PWH) to avoid unnecessary exposures despite antiretroviral guidelines recommending periodic testing. The purpose of this study was to examine the clinical significance of periodic renal, liver, and lipid testing.

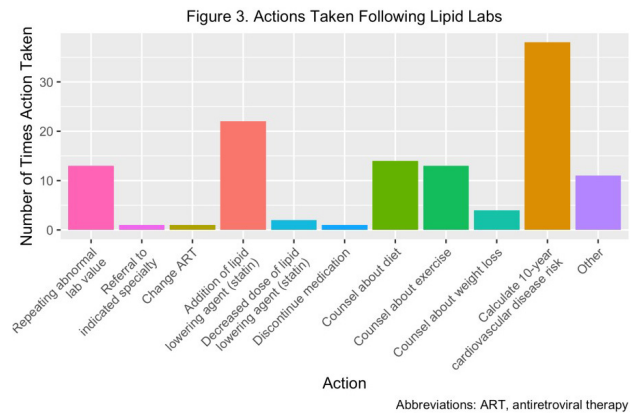
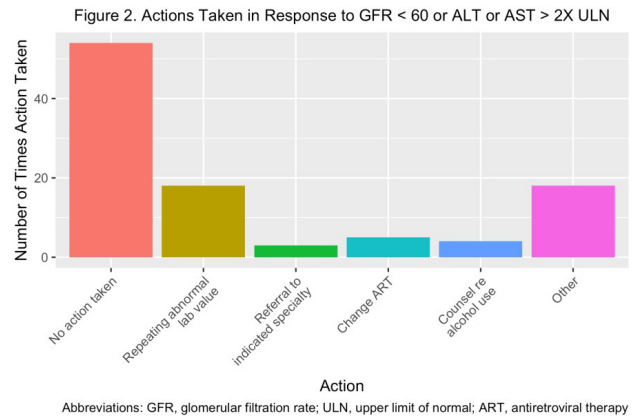
Table 1. Characteristics of Participants at the Initial Visit (N=261)

Characteristic	% (n)
Age in years, median (range)	39 (18-75)
Biological male sex	85 (223)
Race	
Asian	2 (95)
Black	18 (46)
Native American	2 (4)
White	69 (179)
Other	10 (27)
Sexual Orientation	
Heterosexual	27 (71)
MSM/bisexual men	67 (177)
Unknown	5 (13)
Illegal Drug use other than marijuana	15 (38)
CD4 cell count cells/mL	
< 200 cells/mL	12 (32)
201-500 cells/mL	35 (92)
> 500 cells/mL	52 (135)
Unknown	1 (2)

Figure 1. Percentage of Individuals with GFR ≥ 60 ml/min



Methods. We reviewed the charts of 265 people with HIV (PWH) who initiated outpatient care at HIV clinic between 1/1/16 and 12/21/18 and had at least two clinic visits. Analysis included frequency distributions, descriptive statistics, one-sided binomial exact tests, and Poisson models with 95% confidence intervals (CI).



Results. Eighty-five percent (221) of PWH had no laboratory abnormalities while on antiretroviral therapy (ART). The most common abnormality was a glomerular filtration rate (GFR) < 60 ml/min found in 10% of PWH. Multivariate analysis revealed that diabetes mellitus (DM) was associated with an increased risk of GFR < 60 ml/min (estimated rate ratio 2.68, 95% CI 1.35-5.33) and age < 60 years (estimated rate ratio .122, 95% CI .05-.32) was associated with a decreased risk (estimated rate ratio .24, CI .14 -.43). When a GFR < 60 ml/min or an AST or ALT was >2X upper limit of normal (ULN), no action was taken in 52% of the cases. When an action was taken, the most common action was to repeat testing (18%). After a lipid panel result, the most common actions were to calculate a 10-year cardiovascular risk score (32%) and add a statin (18%). Taking action after lipid panel results was strongly associated with age ≥ 40 (estimated rate ratio 9.1, 95% CI 3.3-25). ART was changed in seven PWH based on GFR, AST/ALT, or lipid panel results. There were four individuals with poor outcomes including cerebrovascular accident, acute renal failure, end stage renal disease, congestive heart failure, myocardial infarction, and death. Contributing factors were hypertension, DM, and hypercholesterolemia.

Conclusion. Individuals < 40 years without comorbidities had a low risk of having clinically significant renal and liver function abnormalities and rarely had actions taken after renal, liver, or lipid results. In the era of COVID-19 and beyond, it may be prudent for in certain groups to delay or eliminate liver, renal, and lipid testing to eliminate exposure, reduce cost, and avoid patient anxiety.

Disclosures. All Authors: No reported disclosures

928. Barriers to Hepatitis C Elimination in an Urban Clinic Offering Integrated HIV/HCV Treatment

Lauren A. Correia, BS¹; Christopher C. Tseng, BS¹; Mario Portilla, RN¹; Shobha Swaminathan, MD¹; ¹Rutgers New Jersey Medical School, Cranford, New Jersey

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

Background. Treatment of Hepatitis C virus (HCV) infection for persons with Human Immunodeficiency Virus (HIV) is dependent on consistent outpatient follow-up. We sought to identify factors that are associated with lower HCV treatment rates in HIV/HCV co-infected patients followed at Rutgers Infectious Diseases Practice (IDP), an integrated urban clinic.

Methods. Retrospective chart reviews were conducted for HIV/HCV co-infected patients treated at IDP in Newark, New Jersey between January 2017 and July 2018. We assessed factors associated with lack of HCV treatment in this practice. Data collected included demographics, HIV disease markers, liver function tests, HCV treatment history and response. Factors with $p < 0.05$, age and race were included in the multivariate analysis.

Results. We included 317 HIV/HCV co-infected patients with at least one visit between January 2017 and July 2018. Fifty eight percent were male, 79% black, 10% hispanic, 6% white, and 5% other; 21% reported heterosexual and 79% drug use (injection and non-injection) as their HIV risk factor. The median CD4 was 522 cells/cm³, and 74% of patients had HIV viral load (VL) < 40 copies/ml. HCV treatment was started at IDP in 142 (45%) and of those 87% were cured. Data are awaited on 6%. Univariate analyses showed those not treated for HCV were more likely to be born female (57% vs 42%), have a CD4 count < 200 cells/cm³ (9% vs 27%), HIV VL > 40 copies/ml (43% vs 17%), currently (58% vs 30%) or previously (89% vs 74%) used drugs, and have a higher APRI score (0.43 vs 1.6). Multivariate logistic regression showed that patients with untreated HCV were more likely to be female (OR 2.93, $p < 0.001$), report current drug/alcohol use (OR 2.43, $p = 0.004$), and have HIV VL ≥ 40 copies/ml (OR 2.11, $p < 0.001$).

Table 1: Demographics/Risk Factors of Study Group

Table 1: Demographics/Risk Factors of Study Group	Group Overall		Treated		Not Treated		P-value
	Number (Percent)	Mean (SD)	Number (Percent)	Mean (SD)	Number (Percent)	Mean (SD)	
Sex							<0.001
Percent Male	184 (58)		136 (94)		48 (37)		
Percent Female	133 (42)		9 (6)		124 (93)		
Total	317 (100)		145 (46)		172 (54)		
Age							0.397
Median (IQR)	54 (33-84)		57 (38-84)		51 (30-81)		
Race							0.034
Black	251 (79.2)		163 (79.3)		88 (79.3)		
Hispanic	33 (10.4)		25 (13.3)		8 (7.2)		
White	34 (10.7)		18 (9.6)		16 (14.1)		
Other	15 (4.7)		1 (0.5)		14 (12.4)		
HIV Status							0.021
Has HIV Diagnosis	Median 15	13 (8)	13 (8)		11 (7.2)		
HIV Viral Load	Median (IQR)	755 (124-202)	1438 (87-6)		1365 (80-6)		<0.001
CD4 Count	Median 522	567 (374)	631 (375)		447 (354)		<0.001
Health Status							0.184
Number of Medical Problems	Median 8	10.2 (7.4)	9 (9.8)		10.6 (7.4)		
Number of Medications	Median 10	11.9 (8.9)	11.9 (8.3)		11.4 (8.4)		0.897
HIV/HCV Risk Factors							0.188
MSM	19 (6.0)		15 (7.7)		4 (4.4)		
Injecting Drug Use	19 (6.0)		15 (7.7)		4 (4.4)		
Sexual Contact	19 (6.0)		15 (7.7)		4 (4.4)		
Other	19 (6.0)		15 (7.7)		4 (4.4)		
Heterosexual Contact							0.115
Current Drug Use (200, alcohol abuse, other drug)	125 (39.4)		41 (29.4)		84 (57.5)		<0.001
Past Drug Use	212 (67.5)		119 (84.4)		93 (53.5)		0.002
Other Needle Exposure	0 (0)		2 (1.4)		1 (0.6)		1
HCV Treatment							
Treated	142 (44.8)		142 (44.8)		0 (0)		
Not Treated	175 (55.2)		0 (0)		175 (55.2)		

Table 2: Laboratory Studies

Table 2: Laboratory Studies	Group Overall	Treated	Not Treated	P-Value
CD4 Count < 200 cells/cm ³ : Number (Percent)	48 (15.1)	18 (8.7)	30 (27.0)	<0.001
HIV Viral Load ≥ 40 copies: Number (Percent)	83 (23.2)	35 (17.0)	48 (43.2)	<0.001
APRI: Mean (SD)	0.84 (1.52)	0.43 (0.45)	1.60 (1.88)	0.005

Table 3: Logistic Regression of Significant HCV Treatment Factors

Table 3: Logistic Regression of Significant HCV Treatment Factors	Odds Ratio	P-Value
Female	2.93	<0.001
Black	1.39	0.355
Years since HIV Diagnosis	0.96	0.021
HIV Viral Load ≥ 40 copies	2.11	0.021
CD4 Count < 200 cells/cm ³	1.99	0.097
APRI	2.39	0.001
Current Drug Use	2.43	0.004
Past Drug Use	1.55	0.298

Conclusion. Our results show that despite the availability of integrated treatment programs, concerted efforts need to be made for patients at high risk for not receiving HCV treatment, and who therefore remain at high risk for complications from HCV. Provider perceptions may play a role in withholding treatment for those with high HIV VL and current drug or alcohol use; whereas the rationale for why women were less likely to be treated is less clear and may be related to trauma and other factors not captured by this project that may negatively impact their access to care.

Disclosures. All Authors: No reported disclosures

929. Characteristics Associated with Pain in Older People Living with HIV

Maile Karris, MD¹; Peter Mazonson, MD, MBA²; Theoren Loo, MS, BS³; Jeff Berko, MPH, BS³; Frank Spinelli, MD⁴; Andrew Zolopa, MD⁴; ¹University of California - San Diego, San Diego, California; ²Mazonson & Santas, Inc., Larkspur, CA; ³Mazonson & Santas Inc., Oakland, CA; ⁴ViiV Healthcare, Sag Harbor, NY

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

Background. Pain impacts up to 55% of people living with HIV (PLWH) and negatively impacts function. To date, limited data exist regarding factors that contribute to pain in older PLWH.

Methods. Data were utilized from the Aging with Dignity, Health, Optimism and Community (ADHOC) cohort, an observational study of older PLWH from ten clinics across the U.S. that collects patient-reported outcomes (PROs) on socioeconomic, psychosocial, and health factors. To measure pain, ADHOC participants were asked whether they had been diagnosed with back pain, hip pain, joint pain, or muscle pain, and were also instructed to report chronic pain conditions that were not listed. Bivariate analyses were performed to determine the associations between pain and PROs.

Results. Of 1,051 participants, 66% reported at least one type of pain. Factors associated with pain included multimorbidity, low income, anxiety, loneliness, depression, tobacco use, and older age (Table 1). Factors negatively associated with pain included employment, higher cognitive function, higher quality of life, greater resilience, higher social well-being, and alcohol use.

Table 1. Characteristics associated with pain among older people living with HIV. Pairwise correlations are reported above using correlation coefficient r .

Characteristic	r	p-value
Number of comorbidities	0.33	< 0.001
Annual household income < \$50,000	0.12	< 0.001
Anxiety	0.12	< 0.001
Loneliness	0.09	0.002
Depression	0.08	0.009
Current smoker	0.07	0.017
Age	0.02	0.027
Hazardous drinking	-0.06	0.041
Social well-being	-0.07	0.021
Resilience	-0.09	0.003
Currently employed	-0.15	< 0.001
Quality of life	-0.17	< 0.001
Cognitive function	-0.27	< 0.001

Conclusion. Improving pain management is currently a priority in the US healthcare system. Some factors identified in this study, including systemic issues such as socioeconomic status and employment, are not easily modifiable. Other factors, such as anxiety, depression, and smoking, are modifiable and therefore represent targets for interventions focused on improving pain and its sequelae in older PLWH.

Disclosures. Maile Karris, MD, Gilead Sciences (Grant/Research Support) ViiV Healthcare (Grant/Research Support) Peter Mazonson, MD, MBA, ViiV Healthcare (Grant/Research Support) Theoren Loo, MS, BS, ViiV Healthcare (Grant/Research Support) Jeff Berko, MPH, BS, ViiV Healthcare (Grant/Research Support) Frank Spinelli, MD, ViiV Healthcare (Employee) Andrew Zolopa, MD, ViiV Healthcare (Employee)

930. Clinical Presentation, Treatment, and Outcomes for People with HIV with Histoplasmosis in Memphis, Tennessee

Julia C. Cook, MD¹; Corey Lin, MSc¹; Barbara E. Menzies, MD¹; Christian J. Fuchs, MD¹; Chinelo N. Animalu, MD¹; Shirin A. Mazumder, MD¹; Neena Thomas-Gosain, MD¹; Nathan A. Summers, MD¹; ¹University of Tennessee Health Science Center, Memphis, Tennessee

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

Background. There is limited data on the presentation, treatment, and outcomes in persons with HIV (PWH) with histoplasmosis in the era of modern antiretroviral therapy (ART). We conducted a retrospective review of PWH presenting with histoplasmosis in Memphis, TN.

Methods. All cases of PWH with Histoplasmosis diagnosed or treated between January 1, 2013 and December 31, 2019 at Regional One Health were identified. Cases captured in obsolete and inaccessible EMRs were excluded. Baseline demographics, presentation data, treatment, duration of treatment, and outcomes were abstracted by chart review. A pooled T-test was performed to compare outcomes between those receiving short (≤ 7 days) and longer courses (> 7 days) of amphotericin.

Results. Thirty-four participants were included, of which 30 (88%) were diagnosed in the hospital. The mean age of participants was 41 years, 25 (73.5%) were male, and 31 (91%) were black. Median CD4 cell count and HIV viral load were 15 cells/ μ L, and 415,220 copies/mL, respectively. Median length of time between HIV diagnosis and presentation with histoplasmosis was 3.25 years. Common presenting symptoms included weight loss (21, 61.76%), gastrointestinal symptoms (22, 64.76%), and respiratory symptoms (19, 55.88%). Twenty-seven (79.41%) of participants met SIRS criteria on presentation, two required intensive care, and two participants met HLH criteria. The time between presentation and initiation of appropriate anti-fungal treatment was a median of 1.5 days. The majority of participants received amphotericin B as initial treatment (67.65%, $N = 23$). Twenty-five (60%) participants ultimately received amphotericin, 14 of whom received it for 7 days or less. The median duration of hospitalization was observed to be shorter among the group receiving 7 days or less of amphotericin (7 vs. 10.5 days), although not statistically significant. Overall 30 day mortality was 0%.

Conclusion. This study describes a population of PWH presenting with histoplasmosis in Memphis, TN. Appropriate antifungal therapy was started quickly and patients did well whether they were treated with a short course (7 days or less) or long course of amphotericin. Further research on the duration of amphotericin B in this population is warranted.

Disclosures. All Authors: No reported disclosures

931. Congestive Heart Failure in Persons Living with HIV: Are we providing standard of care?

Salil K. Chowdhury, BS¹; Jung M. Seo, MD²; Steven Keller, PhD³; Pallavi Solanki, MD³; Diana Finkel, DO⁴; ¹Rutgers New Jersey Medical Center, Warren, New Jersey; ²Baylor College of Medicine, Houston, Texas; ³Rutgers New Jersey Medical School, Newark, New Jersey ⁴NJMS Rutgers University, Newark, NJ

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

Background. With antiretroviral therapy, Human Immunodeficiency Virus (HIV) infection has become a life-long chronic condition. Persons Living with HIV (PLWH) have increased risk of cardiovascular diseases including congestive heart failure (CHF) and increased morbidity and mortality from these diseases due to factors such as HIV-induced chronic inflammation. This study will assess if providers at University Hospital in Newark, NJ are providing standard of care for CHF in PLWH.