***Background.*** HIV-associated non-AIDS (HANA) conditions are becoming common as People Living with Human Immunodeficiency Virus (PLWHIV) age. However, data estimating the prevalence of HANA conditions and associated risk factors is lacking in developing countries. This study evaluates reasons for hospitalizations among PLWHIV in Udupi, India in the antiretroviral era, and describes associated risk factors.

Methods. Demographic and clinical data were extracted from medical charts of 1280 HIV-infected patients 18 years and older who were admitted to Kasturba Hospital, Manipal, India between January 1, 2013 and December 31, 2017, for a total of 2157 hospitalizations. Primary reasons for hospitalization were categorized into AIDS-defining vs Non-AIDS-defining and HANA vs Non-HANA conditions (Fig 1). Multivariate logistic regression analysis was performed to estimate demographic and clinical factors associated with hospitalizations due to AIDS-defining illness and HANA conditions.

Categorization of Reasons for Hospitalization

Figure 1. Categorization of Reasons for Hospitalization
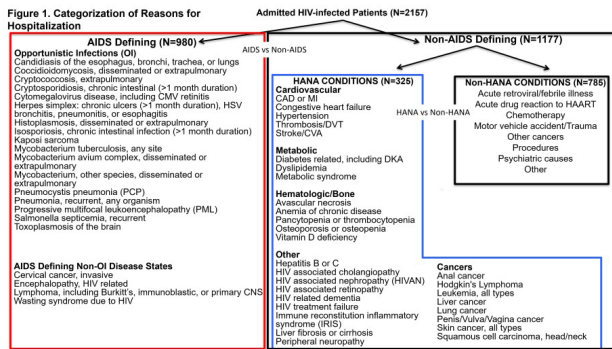
Results. Patients' median age was 45 (18-80) years; 70% male. Median age of patients with AIDS-defining illness (45% of hospitalizations) was lower at 44 (18-75) years compared with HANA (15% of hospitalizations) at 48 (21-80) years.

Age (OR, 95% CI) (0.985, 0.974-0.995), admission CD4 (0.998, 0.997 - 0.998), history of hypertension (HTN) (0.59, 0.42-0.82), stroke (0.49, 0.24 - 0.93), diabetes (1.56, 1.10 - 2.19), and AIDS-defining cancers (1.74, 1.05 - 2.89) were associated with AIDS-defining hospitalizations (Fig 2).

Additionally, age (1.016, 1.001 - 1.031), history of HTN (1.70, 1.16 - 2.46), coronary artery disease (CAD) (4.02, 1.87- 9.02), chronic kidney disease (CKD) (2.30, 1.15 - 4.61), stroke (2.93, 1.46 - 5.96), Hepatitis B (3.32, 1.66- 6.72), Hepatitis C (16.1, 2.84 - 314), sexually transmitted disease (STD) (3.76, 1.38- 10.8), and HANA-associated cancer (2.44, 1.28- 6.42) were associated with HANA hospitalizations (Fig 3).

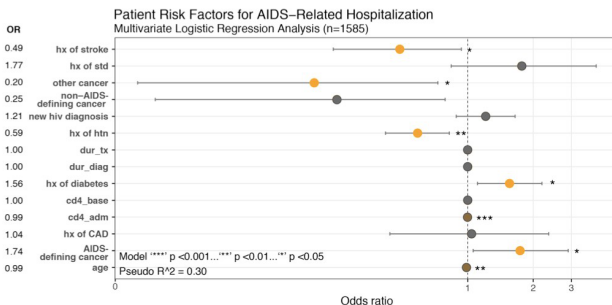Patient Risk Factors for AIDS-related Hospitalization

Figure 2. Patient Demographic and Chronic Conditions as Risk Factors for AIDS-Defining Hospitalization for People Living with HIV (PLWHIV). Total of 2157 hospitalizations were categorized into AIDS-Defining & Non-AIDS-Defining Hospitalizations. Univariate logistical regression analyses were performed to identify the 14 patient risk factors (p<0.05) listed above, which were entered into a multivariate logistical regression (MLR) analysis without controls. Due to missing data, 572 hospitalizations were dropped from the MLR analysis. Of the remaining 1586, 774 were AIDS defining and 811 were non-AIDS-defining hospitalizations. Error bars represent 95% confidence intervals. McFadden's R squared analysis was conducted to determine model fitness.

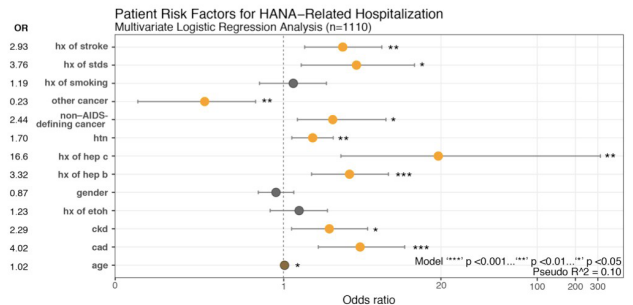Patient Risk Factors for HANA-related Hospitalization

Figure 3. Patient Demographic and Chronic Conditions as Risk Factors for HANA-Related Hospitalization for People Living with HIV (PLWHIV). Total of 1110 non-AIDS hospitalizations were categorized into HANA-Related & Non-HANA Hospitalizations. Univariate logistical regression analyses were then performed to identify the 13 patient risk factors (p<0.05) listed above, which were entered into a multivariate logistical regression (MLR) analysis without controls. There were no missing data for this MLR analysis, 325 were HANA related hospitalizations and 785 were non-HANA hospitalizations. Error bars represent 95% confidence intervals. McFadden's R squared analysis was conducted to determine model fitness.

Conclusion. Prevalence of HANA conditions was lower than AIDS-defining illnesses possibly because of a younger population. Patients with AIDS-defining illnesses were also likely to have HANA conditions. Early detection and effective treatment of both HIV and HANA conditions is essential to decrease hospitalizations in low-resource settings.

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

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946. Risk factors and Metabolic Implications of Integrase Inhibitor Associated Weight Gain

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

Background. Excessive weight gain associated with integrase strand transfer inhibitor (InSTI) antiretrovirals is an emerging issue in the current antiretroviral treatment (ART) era. Despite the known association between excess weight and impaired glucose tolerance in the general population, the metabolic implications of InSTI-associated weight gain have not been established. The objective of this study was to evaluate the presence of InSTI-associated weight gain amongst a diverse, urban population and to investigate potential risk factors and metabolic implications.

Methods. We obtained demographic, pharmacy and laboratory data from the hospital clinical data warehouse for ART-naïve adult HIV+ patients at Boston Medical Center between fiscal year (FY) 2007-2017. We compared patients who initiated on an InSTI to those with an alternate regimen (i.e. PI, NNRTI) who remained on their initial regimen for at least 18 months. Individuals with diabetes mellitus (DM) prescription or ICD 9/10 code prior to ART initiation were excluded. Our primary outcome was percent weight change in the first 24 months of ART estimated by linear mixed effects model fit by restricted maximum likelihood. Our secondary outcome was incident DM diagnosis in the 18 months after ART using progression-free survival (PFS). PFS rates were estimated by the Kaplan-Meier method and log-rank test, and Cox proportional-hazards model were determined, all using R v3.6.2.

Results. Between FY 2007-2017, 139 patients were initiated on InSTIs and 1117 were initiated on alternative anchor regimens. Approximately, one third of the cohort was female and more than 75% were non-white. InSTI use in women was associated with increased weight gain in the first 24 months of ART compared to non-InSTIs (+9.57%, p = 0.002, *Figure 1*). InSTI use was associated with more incident DM diagnoses in the first 18 months of ART compared to non-InSTI regimens (HR = 3.27, p = 0.014).

Figure 1: Percentage weight change from baseline at ART initiation between InSTI and non-InSTI regimens
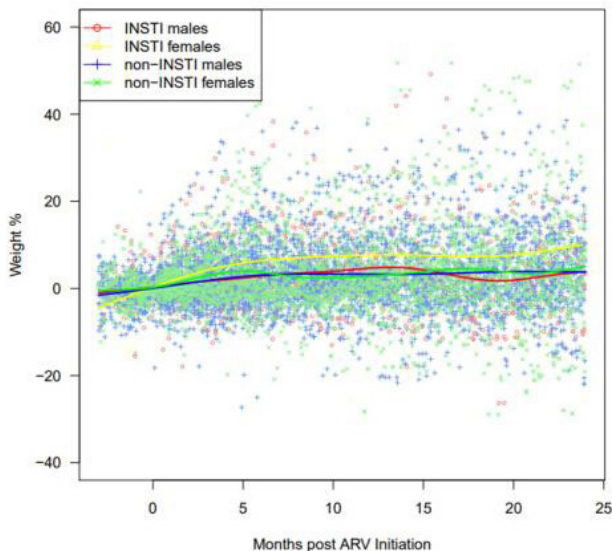
Conclusion. Females have higher InSTI-associated weight gain which suggests they may be more susceptible to adverse metabolic issues. InSTI use appears to be associated with an increased incidence of DM diagnoses following ART initiation. Further prospective and controlled studies will be necessary to describe the mechanism of this effect and refine HIV management strategies.

Disclosures. **Archana Asundi, MD**, **Gilead** (Scientific Research Study Investigator)**Merck** (Scientific Research Study Investigator)**ViiV** (Scientific Research Study Investigator) **Nina H. Lin, MD**, **Gilead Sciences** (Scientific Research Study Investigator)**ViiV** (Scientific Research Study Investigator)

947. Stroke demographics and risk factor profile in HIV infected individuals in Florida

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

Background. The risk of ischemic stroke (IS) is known to be higher in people living with HIV (PLWH) than uninfected controls. However, information about the demographics and risk factors for hemorrhagic stroke (HS) in PLWH is scant. Specifically, very little is known about the differences in the stroke risk factors between HS and IS in PLWH. The goal of this study was to determine the demographics and risk factor differences between HS and IS in PLWH.

Methods. We retrospectively analyzed the demographic and clinical data of PLWH in OneFlorida (1FL) Clinical Research Consortium from October 2015 to December 2018. 1FL is a large statewide clinical research network and database which contains health information of over 15 million patients, 1240 clinical practices, and 22 hospitals. We compared HS and IS based on documented ICD 9 and 10 diagnostic codes and extracted information about sociodemographic data, traditional stroke risk factors, Charlson comorbidity scores, habits, HIV factors, diagnostic modalities and medications. Statistical significance was determined using 2-sample T-test for continuous variables and adjusted Pearson chi square for categorical variables. Odds ratio (OR) and 95% confidence intervals (CI) between groups were compared.

Results. Overall, from 1FL sample of 13986 people living with HIV, 574 subjects had strokes during the study period. The rate of any stroke was 18.2/1000 person-years (PYRS). The rate of IS was 10.8/1000 PYRS while the rate of HS was 3.7/1000 PYRS, corresponding to 25.4% HS of all strokes in the study. Table 1 summarizes the pertinent demographic and risk factors for HS and IS in PLWH in the study.

Table 1: Summary of pertinent demographic and risk factors for hemorrhagic and ischemic strokes in people living with HIV from One Florida database

	HS	IS	P- value	OR
Age(yrs.) mean(CI)	51.3 (48.5- 54.1)	57.3(55.9-58.6)	<0.001	
Gender (Male) % (CI)	65 (55.2-73.2)	62 (57.1-67.6)	NS	
Race (Blacks) % (CI)	57.7 (48.2-66.8)	65.7 (60.4-70.7)	NS	
BMI(kg/m₂) mean (CI)	25.5 (24.2-26.7)	26.6 (25.8-27.4)	NS	
ARV usage (%) (CI)	19 (12.5-27.5)	29 (24.3- 34.2)	NS	
HTN (%) (CI)	62.1 (52.5-70.8)	82.7 (78.2-86.5)	< 0.001	0.34 (0.21-0.55)
CAD (%) (CI)	20.7 (13.9-29.4)	35.8 (30.7-41.2)	0.0038	0.47 (0.28-0.77)
HLP (%) (CI)	30.2 (22.2-39.5)	61.6 (56.2-66.7)	<0.001	0.27 (0.17-0.42)

Legend: HS (Hemorrhagic stroke); IS (Ischemic stroke); BMI (Body mass index); ARV (Antiretroviral drugs); HTN (Hypertension); CAD (Coronary artery disease); HLP (Hyperlipidemia); CI (95% Confidence interval); OR (Odds ratio); NS – No difference between groups.

Conclusion. In this large Floridian health database, demographics and risk factor profile differs between HS and IS in PLWH. Younger age group is associated with HS than IS. However, hypertension, hyperlipidemia and coronary artery disease are more likely to contribute to IS than HS in PLWH. Further research is needed to better understand the interplay between known and yet unidentified risk factors that may be contributing to HS and IS in PLWH.

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

948. The Changing Dynamics of Hospitalizations Among People Living with HIV Over Time

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

Background. As antiretroviral therapy for HIV has become more successful, people living with HIV (PLWH) are aging. Nearly half (48%) of all PLWH in the U.S. are now ≥ 50 years old, and this proportion is expected to continue to grow. The aging population of PLWH offers new challenges to the healthcare system beyond HIV management, with increased risks for chronic comorbidities and other complications of aging. Few studies have examined the causes and outcomes of hospitalizations among PLWH or how these diagnoses have changed over time.

Methods. Using U.S. hospitalization data from 1993 to 2014 from the National Inpatient Sample, we compared the primary diagnosis at admission among PLWH to HIV-negative hospitalizations and how this changed over time. We also compared the mean age at admission, hospital length of stay, total charges, and hospital disposition.

Results. There were 654,783,064 hospitalizations recorded from 1993 - 2014, with 5,370,749 among PLWH (0.8%) and 649,412,315 among HIV-negative patients (99.2%). The mean age of PLWH on admission increased from 37.4 years in 1993 to 48.1 years in 2014 and was lower than HIV-negative patients every year (Figure 1). There was a significant decrease in the proportion of admissions with HIV as the primary diagnosis for PLWH between 1993 - 2014 (53.1% to 24.2%) with a corresponding increase in non-HIV diagnoses over that time (Figure 2). The proportions of primary admission diagnoses for HIV-Negative patients were largely unchanged over the period. Although mean hospital lengths of stay for PLWH decreased over time, they were consistently longer than HIV-negative patients (Figure 3). Similarly, mean total charges for PLWH increased over time but were consistently higher than those for HIV-negative patients (Figure 3). The proportion of PLWH who died during hospitalization declined from a peak of 8.8% in 1993 to 2.4% in 2014 while in-patient mortality among HIV-negative patients declined from 3.2% to 2.2% over the same time.

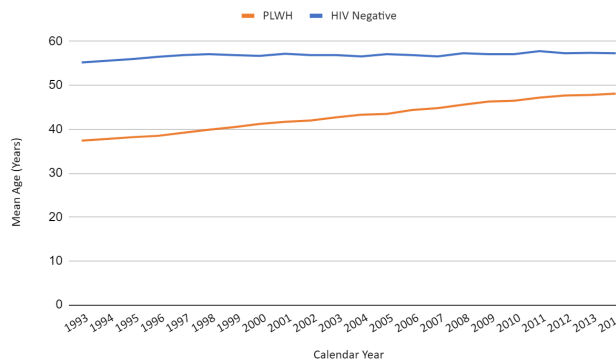Figure 1. Trends of Mean Age for PLWH and HIV-Negative Admissions from 1993 – 2014

Figure 2. Trends of HIV vs. non-HIV as the Primary Admission Diagnoses for PLWH from 1993 – 2014