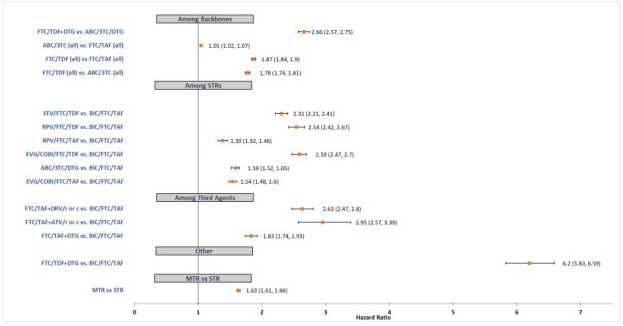
Table 1. Persistence with ART by regimen for STR and MTR

STR	EVG/COBI/FTC/TAF (N=27,059)		EVG/COBI/FTC/TDF (N=8,390)		DTG/ABC/3TC (N=21,575)		RPV/FTC/TAF (N=5,953)		RPV/FTC/TDF (N=4,698)		EFV/FTC/TDF (N=10,453)		BIC/FTC/TAF (N=12,821)	
	Mean/N	SD/%	Mean/N	SD/%	Mean/N	SD/%	Mean/N	SD/%	Mean/N	SD/%	Mean/N	SD/%	Mean/N	SD/%
Number of days on therapy	470.7	366.4	359.6	329.8	473.4	390.5	469.6	347	354.3	331.4	408.1	359.4	311.6	156.9
Patients with 6 month persistence*	19,715	73%	5,232	62%	15,393	71%	4,476	75%	2,909	62%	7,015	67%	10,172	79%
Patients with 12 month persistence among patients with ≥ 12 months of follow-up**	14,054	56%	3,083	37%	10,721	53%	3,158	58%	1,659	36%	4,520	44%	4,590	65%

MTR	DTG+FTC/TDF (N=5,560)		DTG+FTC/TAF (N=7,347)		DRV/r or c + FTC/TDF (N=3,222)		DRV/r or c + FTC/TAF (N=2,599)		ATV/r or c + FTC/TDF (N=1,557)		ATV/r or c + FTC/TAF (N=274)		DRV/r or c + ABC/3TC (N=178)	
	Mean/N	SD/%	Mean/N	SD/%	Mean/N	SD/%	Mean/N	SD/%	Mean/N	SD/%	Mean/N	SD/%	Mean/N	SD/%
Number of days on therapy	219.1	272.9	396.7	304.1	275.7	242.1	330.5	273	247.6	205.5	297.9	242.6	204.7	163.3
Patients with 6 month persistence*	2,103	38%	5,099	69%	1,746	54%	1,646	63%	817	52%	165	60%	86	48%
Patients with 12 month persistence among patients with ≥ 12 months of follow-up**	1,137	22%	3,402	51%	883	28%	935	39%	347	22%	81	32%	19	11%

*defined as patients who remain on their index regimen at 6 months of follow-up
**defined as patients who remain on their index regimen at 12 months of follow-up

Figure 1. Forest Plot of Hazard Ratios for Treatment Discontinuation



Conclusion. Among US adult PLWH, STRs were associated with longer persistence on first-line therapy compared to MTRs. Among STRs, persistence was highest for BIC/FTC/TAF.

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

1037. Qualitative Findings from a Hybrid III Implementation-Effectiveness Study to Explore Perspectives of Health-care Staff on Early Implementation of Cabotegravir and Rilpivirine Long Acting (CAB+RPV LA) Injectable HIV treatment in the US (CUSTOMIZE)

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Session: P-47. HIV: Treatment

Background. CAB+RPV LA administered monthly for HIV treatment is non-inferior to daily oral ART at maintaining HIV suppression but concerns about implementation of this novel treatment paradigm remain. CUSTOMIZE, an implementation-effectiveness study, examined barriers and facilitators to successful implementation of CAB+RPV LA in US HIV clinics.

Methods. Semi-structured qualitative interviews were conducted with physicians, injectors, and administrators across diverse clinics in US without previous CAB+RPV LA experience at Baseline (BL) (N=26) and after patients received the 4th monthly injection of CAB + RPV LA (interim) (N=24). Consolidated Framework for Implementation Research (CFIR) guided the interviews to evaluate barriers and facilitators to implementation. Interviews were recorded, transcribed, and coded using ATLAS.ti then analyzed for trends.

Results. At BL, 58% of study staff expected CAB+RPV LA would meet the needs of patients. Staff reported perceived advantages for patients: reduced stigma of pill bottles (38%), ability to live/travel in a "carefree" manner (31%) and removing the daily reminder of HIV (20%). At BL, most administrators had resource concerns: additional refrigeration, transportation, and staffing. Some clinics (38%) needed to purchase a refrigerator to store CAB+RPV LA. Some physicians noted a potential need for improved parking or expanded hours. At interim, most staff (71%) reported no change in official clinic hours; but 50% of injectors and 38% of administrators reported changing work hours to accommodate injection visits before clinic or at lunchtime. Existing appointment reminder systems and transportation support were reported as facilitators to implementation. Many staff (46%) noted additional visits increased coordination of other care needs. Most staff (67%) noted high patient acceptance and positive attitudes facilitated successful implementation of CAB + RPV LA.

Conclusion. Some staff had concerns about implementation initially, but at study interim minimal practice changes were needed to operationalize CAB+RPV LA effectively. Patient interest heightened staff desire to implement CAB+RPV LA in their clinics. Staff are optimistic that monthly CAB+RPV LA is manageable with minimal disruption to routine care in US HIV care settings.

Disclosures. Maggie Czarnogorski, MD, MPH, ViiV Healthcare (Employee) Cindy Garris, MSPH, GlaxoSmithKline (Other Financial or Material Support, Stockholder)ViiV Healthcare (Employee) Paul Wannamaker, BA, ViiV Healthcare (Employee) Ronald D'Amico, DO, MSc, GlaxoSmithKline (Shareholder)ViiV Healthcare (Employee) Carolyn Selenski, PhD, GSK (Employee, Shareholder) Colleen A. McHorney, PhD, Evidera (Employee) Larissa Stassek, MPH, Evidera (Employee) Gary I. Sinclair, MD, ViiV (Speaker's Bureau) Leandro A. Mena, MD, MPH, Binx Health (Grant/Research Support)Evofem (Grant/Research Support)Gilead Science (Consultant, Grant/Research Support, Speaker's Bureau)GSK (Grant/Research Support)Janssen (Grant/Research Support)Merck (Consultant, Grant/Research Support)Roche Molecular (Consultant, Grant/Research Support)SpeedDx (Grant/Research Support)ViiV Healthcare (Consultant, Grant/Research Support, Speaker's Bureau) David Margolis, MD, MPH, GlaxoSmithKline (Shareholder)ViiV Healthcare (Employee)

1038. Rapid Start: A Changing Algorithm for the Management of HIV Infection

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Session: P-47. HIV: Treatment

Background. Initiating combination antiretroviral therapy (cART) as early as the day of HIV diagnosis is a strategy of increasing interest to control the HIV epidemic and optimize the health of people living with HIV. Pilot studies have shown that starting cART immediately after diagnosis has led to earlier linkage to care and HIV-1 RNA suppression. However, there is some evidence from observational studies that starting cART on the same day as HIV diagnosis may increase the risk of loss to follow-up. Consequently, there is a need for additional data for immediate cART initiation.

Methods. A Retrospective cohort study was conducted from 2016 to 2018 to identify clinical characteristics and risk factors in patients that were diagnosed with HIV-1 with a 4th generation assay using electronic medical records. Rapid start was defined as offering cART prior to or on the first clinic visit. Categorical variables were analyzed using chi-sq test and continuous variables were analyzed using t-test. Data analysis was done using SAS 9.4.

Results. In the study period, 188 patients were identified as HIV-1 positive and cART naïve: 152 males and 34 females. Risk factors included men who have sex with men (N = 86), heterosexual transmission (N = 88), intravenous drug use (N = 18) and multiple partners (N = 15). Of the 188 patients, 40 patients were rapidly started on cART on average within 6 days of diagnosis vs 42 days in the standard of care patients (P > 0.0001), with a shorter duration to clinic follow up over time (P = 0.3103). 50% patients that were rapid started on cART maintained an undetectable viral load vs 77% of the standard of care group (P = 0.3174). 90% of the rapid start patients were retained in care at 12 months vs 78% of the standard of care patients (P = 0.4950). 126 patients were started on single tablet regimens (P = 0.0001) with a trend favoring bictegravir, emtricitabine & tenofovir alafenamide (P = 0.0001).

Conclusion. Our study adds to the growing data that rapid ART initiation within seven days of HIV diagnosis could reduce loss to follow-up, improve virological suppression rates, and reduce mortality. The percentage of patients with undetectable HIV-1 viral load and retained in care was comparable to that in standard of care, indicating that starting cART immediately after diagnosis was well accepted by patients.

Disclosures. **Indira Brar, MD**, **Gilead** (Speaker's Bureau)**janssen** (Speaker's Bureau)**ViiV** (Speaker's Bureau)

1039. Real World Community-Based HIV Rapid Start Antiretroviral with BFTAF Versus Conventional HIV Antiretroviral Therapy Start – The RoCHaCHa Study, a Pilot Study

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Session: P-47. HIV: Treatment

Background. Trillium Health (TH) is a FQHC in Rochester, NY providing primary and specialty care, including HIV prevention and treatment. Rapid Start ART (RSA) has been shown to decrease time to virologic suppression while increasing linkage to and retention in care. However, data on BFTAF with these benefits is limited. We aim to prove RSA with BFTAF is advantageous in time to viral load suppression, linkage to and retention in care, and patient satisfaction and acceptance.

Methods. We included data from ART-naive newly diagnosed PLWH enrolled between October 2018 and March 2020 with baseline assessment and started BFTAF. Follow up visits were done per protocol though 48 weeks. The primary study endpoints include median times from: diagnosis to clinic presentation, clinic presentation to ART, and ART to undetectable viral load (VL), < 200 copies/mL and < 50 copies/mL. Linkage to and retention in care were measured at 3 months. Study results were compared with non-RSA historical control data. Patient reported outcomes were evaluated at study completion.

Results. Of the 27 eligible, 25 participants enrolled. Thirteen received their diagnosis at TH: screening for PrEP (6), community-based HIV/STI/HCV testing (3), community outreach (1), or routine patient screening in primary care (3). Twelve were diagnosed externally: university health centers (2), other health clinic (9), or at-home rapid HIV test (1). All accepted the RSA treatment with BFTAF; two eligible patients declined the study, but accepted RSA. 73.9% of participants were seen within 14 days of Day 84, compared with 50% of historical control group. 12 of 25 completed the primary endpoint of which 100% were highly satisfied with RSA. There were no regimen changes or virologic failures through 48 weeks.

RoCHaCHa Study Results

Outcomes	Study RSA, n=23	Non-RSA Control, n=24
Diagnosis to clinic presentation, median (interquartile range)	1 (0.0 – 3.5) days	9.5 (6.0 – 22.25) days
Clinic presentation to ART, median (interquartile range)	0 (0.0 – 0.0) days	35.5 (28.0 – 57.0) days
ART to VL <200 copies/mL, median (interquartile range)	14 (7.5-26.5) days	34 (29.75 – 62.75) days
ART to VL <50 copies/mL, median (interquartile range)	27 (11.5 – 29.0) days	74 (31.75- 200.5) days
Linkage and Retained in care at 3 months*	73.9%	50%
*Count of patients seen within 14 days of 84 day mark since ART start.		

Conclusion. RSA with BFTAF reduced time to virologic suppression in all participants newly diagnosed with HIV-1 compared with historical non-RSA model.

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1040. Real-World Implementation of Dolutegravir-Lamivudine to Achieve and Maintain HIV-1 Viral Suppression at an Academic Medical Center

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Session: P-47. HIV: Treatment

Background. Two-drug antiretroviral (ARV) regimens to achieve and maintain HIV viral suppression may lead to decreases in associated drug interactions, adverse events, and pill burden. Dolutegravir-lamivudine (DTG-3TC) has been established as safe and effective in treatment naïve and experienced adults. Further research is warranted to assess insertion into real-world practice.

Methods. This descriptive retrospective cohort consisted of all patients at an academic medical center HIV practice with a confirmed order of DTG-3TC between April 2019 and March 2020. Patients who were not linked to care by the site's practices were excluded. The primary endpoint was number of patients initiated on DTG-3TC to determine uptake. Secondary endpoints included demographics and viral outcomes. Descriptive measures of central tendencies and variability were used for analysis.

Results. DTG-3TC was initiated in 49 patients. Sixty-nine percent were male (34/49), 90% carried publicly funded insurance (44/49), median age at DTG-3TC initiation was 55 years (IQR 46-60), and mean years since HIV diagnosis was 14 (SD ±8). The largest racial/ethnic category represented was Black (45%, 22/49). Forty-seven patients with a mean CD4 of 753 cells/mm3 (±413) and viral load of 88.2 copies/mL (±525) were switched from alternative regimens, mostly containing an integrase inhibitor (41/47, 87%), and with the primary rationale of medication modernization (27/47, 58%) followed by avoidance of adverse drug reactions (15/47, 32%). From 42 assessed patients, 62% had previous ARV exposure length of over 10 years. No patients were found to have significant resistance mutations to the involved agents. After initiation, 6% (3/49) of patients reported side effects. Among switch patients with follow up lab values, median CD4 (n=20) and viral load (n=21) deltas were -10 cells/mm3 (-59-67) and 0 copies/mL (0-0) respectively. Overall median length of therapy through April 1, 2020 was 110 days (71-156).

Conclusion. Initial implementation of DTG-3TC was successful in a northeast academic HIV practice primarily among virally suppressed treatment switch patients with long exposures to ARV and time since diagnosis. No clinically relevant change in CD4 or Viral Loads were immediately seen.

Disclosures. **David E. Koren, PharmD, BCPS, AAHIVP**, **Gilead Sciences** (Advisor or Review Panel member)**Janssen Pharmaceuticals** (Advisor or Review Panel member)**Thera Technologies** (Advisor or Review Panel member)

1041. Tenofovir alafenamide associated weight change in persons living with HIV

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Session: P-47. HIV: Treatment

Background. Persons living with human immunodeficiency virus (PLWH) have a higher incidence of developing obesity, diabetes, and cardiovascular disease. TAF, a newer formulation of tenofovir, has favorable effects on renal function and bone mineral density compared to TDF. However, recent evidence suggests TAF may have a higher propensity for weight gain over TDF. The purpose of this study is to evaluate weight change in patient switched from TDF to TAF, keeping constant the other components of their antiretroviral therapy.

Methods. This retrospective observational cohort study evaluated adult PLWH who were followed for 12 months pre and post TDF to TAF therapy switch holding all other ART constant. Patients were excluded if not on TDF or TAF therapy for a minimum of 12 months, if there were additional changes to their ART, or if there was inadequate documentation of weight defined as less than 2 weight records pre and post TAF switch. Data collected included height, weight, HIV RNA, CD4 count, and presence of any current opportunistic infections or chronic comorbid conditions. The primary endpoint was change in weight after TAF switch. All variables were evaluated using linear mixed effect models over time.

Results. 466 patient charts were reviewed and 55 patients met study criteria and were included in the analysis. The median age (SD) of patients included was 45.9 (12.6) years with most patients being male (67%) and black (73%). Patients had an HIV diagnoses for a mean (SD) of 10 (6.6) years with a mean (SD) CD4 count of 544 (246.8). Full baseline characteristics are recorded in Table 1. Notably, most patients had either an INSTI or PI in their baseline ART regimen (Table 1). The estimated overall marginal mean weight gain was 1.91 kg (95% CI 0.25-3.57, p=0.024). The estimated overall gain in BMI was 0.63 kg/m2 (95% CI 0.08-1.18). Significant predictors of weight gain included female gender (3.09, 95% CI 0.54 – 5.65) and use of both integrase and protease inhibitors at baseline (6.97 kg, 95% CI 3.02 – 10.92).

Conclusion. In a predominantly black, male population, there was a statistically significant change in weight after a TAF switch.

As this is the only data highlighting weight changes following tenofovir formulation change, more data is needed to elucidate the extent of weight-gain in patients on TAF-based regimens.

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1042. The Attitude of Patients With HIV about Telehealth for Their HIV Care

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Session: P-47. HIV: Treatment

Background. The world is facing a pandemic of SARS-CoV-2 that disrupted our healthcare system and the way we deliver healthcare. For people with HIV (PWH), the ability to be retained in care plays a critical role in improving health outcomes and in preventing HIV transmission. Several definitions exist for retention in care, but they are centered around outpatient clinic visits. It is now more important than ever to understand PWH's attitudes about using telemedicine for HIV care instead of face-to face clinic visits.

Methods. We administered a one-time survey to PWH presenting to an outpatient HIV center in Houston, Texas, from February–June 2018. The survey items were used to assess PWH's attitudes towards and concerns for telehealth and explanatory variables.

Results. 371 participants completed the survey; median age was 51, 36% were female, and 63% African-American. Overall, 57% of respondents were more likely to use telehealth for their HIV care if available, as compared to one-on-one in-person care, and 37% would use telehealth frequently or always as an alternative to clinic visits.

Participants reported many benefits including ability to fit better their schedule, decreasing travel time, and privacy but expressed concerns about the ability to effective communication and examination and the safety of personal information. Factors associated with likelihood of using telehealth include personal factors (US-born, men who have sex with men, higher educational attainment, higher HIV-related stigma perception), HIV-related factors (long standing HIV), and structural factors (having difficulty attending clinic visits, not knowing about or not having the necessary technology). There was no association between participants with uncontrolled HIV, medication adherence, and likelihood of using telehealth.