Conclusion. In US/CAN Phase 3/3b trial participants, CAB+RPV LA was highly effective and well tolerated, with outcomes consistent with the overall pooled population. Baseline prevalence of archived RPV RAMs and subtype A6/A1 was low and aligned with regional prevalence/surveillance data. CAB+RPV LA provides a tolerable and effective injectable LA treatment option for virologically suppressed US/CAN individuals with HIV.

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878. Telemedicine Implementation in a Midwestern HIV Clinic: One Year Outcomes

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Session: P-51. HIV: Treatment

Background. During the COVID-19 pandemic, we realized the importance of limiting in-clinic interactions with patients who were stable on antiretroviral therapy to promote social distancing. Our HIV clinic adopted telemedicine practices, in line with the HHS Interim Guidance for COVID-19 and Persons With HIV. Several HIV clinics reported lower viral suppression rates during the pandemic. We aim to describe the implementation process as well as year one outcomes of telemedicine at our clinic.

Methods. In March 2020, we created telemedicine protocols; we also designed and continuously updated algorithms for determining patient eligibility for telemedicine based on recent viral loads and last clinic visit. We monitored outcomes through electronic medical record chart reviews between May 1, 2020, and April 30, 2021. We collected patient demographics, and federal poverty level (FPL) information. We collected baseline and post-intervention rates of viral load suppression (VLS, defined as HIV RNA < 200 copies per mL), medical visit frequency (MVF, defined as percentage of patients who had one visit in each 6 months of the preceding 24 months with at least 60 days between visits) and lost to care (LOC, no follow up within 12 months period).

Results. We conducted a total of 2298 ambulatory medical visits; 1642 were in person and 656 (29%) were telemedicine visits. Out of those, 2177 were follow up visits (649, 30% telemedicine). There was no difference of telemedicine utilization based on race (28% in African Americans vs. 32% in Whites); ethnicity (30% in Hispanic vs. 30% in Hon-Hispanic); gender (24% in females vs. 30% in males); or FPL (28% in FPL < 200% vs. 31% in FPL >200%). By the end of April 2021, overall clinic VLS rate was 94%, MVF was 48%, and there were 40 patients LOC compared to 92%, 49%, and 43 patients in April 2020, respectively.

Conclusion. Telemedicine was a safe alternative to routine in-person HIV care during the COVID-19 pandemic. We observed similar rates of utilization across demographic and FPL status. Applying selection criteria, viral suppression and retention in care rates were not adversely impacted by shift to telemedicine modality.

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879. Evaluation of the Incidence of Hypertension, Diabetes, and Hyperlipidemia in Patients on Antiretroviral Therapy

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Session: P-51. HIV: Treatment

Background. Although integrase inhibitor (INSTI)-based regimens have been associated with weight gain, there is limited data on whether INSTIs cause long-term metabolic consequences. This study evaluated the effect of INSTIs on the development of metabolic comorbidities compared to non-nucleoside reverse transcriptase inhibitor (NNRTI) or protease inhibitor (PI)-based therapies in patients in the Illinois Department of Corrections.

Methods. This retrospective cohort study consisted of incarcerated adult patients living with HIV and receiving a guideline-recommended regimen between 7/12/10 and 12/31/19. Patients with a pre-existing diagnosis of diabetes, hypertension, or hyperlipidemia, or lack of medical follow-up data were excluded. The primary outcome was to compare the incidence of a metabolic comorbidity between regimens. Secondary outcomes compared the incidence of weight gain, diabetes, hypertension, and hyperlipidemia as separate outcomes between drug classes. Demographics and pertinent labs were collected. Data was analyzed with ANOVA, chi-squared, and paired t-tests. The primary outcome was adjusted for age, race, use of antipsychotic medications, and family history of metabolic comorbidities.

Results. A total of 206 patients were included in the analysis with mean follow-up time of 31.5 ± 19.4 months. Majority of patients were Black (69%) and male (91%). A total of 42 patients developed a metabolic comorbidity (Table 1). After adjustment for confounding factors, there was a significant difference in the development of comorbidities between the treatment groups (p=0.031) with INSTI use being more likely to develop a comorbidity than NNRTI (p=0.004). No difference was found between INSTI and PI use (p=0.518). Development of hypertension was significantly higher in the INSTI group than NNRTI group (p=0.014), while the development of diabetes and hyperlipidemia were not. Weight and BMI were significantly higher regardless of antiretroviral (Table 2). No differences were found in the primary outcome between agents within the same drug class or between 1st or 2nd generation INSTIs.

Table 1. Results of Primary and Secondary Outcomes

	INSTI[a] (n=111)	PI[b] (n=47)	NNRTI[c] (n=48)	p-value
Development of a comorbidity, n (cases per 100 patient years)	29 (5.37)	10 (1.85)	3 (0.56)	0.031
Development of diabetes, n (cases per 100 patient years)	1 (0.19)	0 (0)	0 (0)	0.652
Time to diabetes development, months ± SD	34.0 ± 0	N/A	N/A	-
Development of hypertension, n (cases per 100 patient years)	21 (3.89)	8 (1.48)	2 (0.37)	0.027
Average time to hypertension development, months ± SD	18.5 ± 3.1	19.6 ± 6.6	10.5 ± 4.7	-
Development of hyperlipidemia, n (cases per 100 patient years)	11 (2.04)	3 (0.55)	1 (0.19)	0.205
Average time to hyperlipidemia development, months ± SD	29.6 ± 7.3	29.12 ± 12.8	N/A	-

Acronyms: INSTI = integrase inhibitor, n = number, N/A = not applicable, NNRTI = non-nucleoside reverse transcriptase inhibitor, PI = protease inhibitor, SD = standard deviation
[a] INSTIs included bictegravir, elvitegravir, dolutegravir, and elvitegravir
[b] PIs included darunavir and atazanavir
[c] NNRTIs included efavirenz and rilpivirine

Table 2. Impact of HIV regimen on weight and BMI after 1 year

	Average weight pre-regimen (lbs) ± SD	Average weight post-regimen (lbs) ± SD	p-value
INSTI[a] (n=105)	183.8 ± 36.4	193.3 ± 37.4	< 0.0001
PI[b] (n=42)	176.5 ± 33.6	182.2 ± 30.2	0.0036
NNRTI[c] (n=40)	178.0 ± 38.4	187.5 ± 38.1	0.003
	BMI pre-regimen (kg/m^2) ± SD	BMI post-regimen (kg/m^2) ± SD	p-value
INSTI (n=98)	26.8 ± 4.7	28.2 ± 4.7	< 0.0001
PI (n=24)	26.9 ± 4.8	27.9 ± 4.5	0.0074
NNRTI (n=27)	26.7 ± 5.0	28.0 ± 5.0	0.015

Acronyms: BMI = body mass index, INSTI = integrase inhibitor, lbs = pounds, n = number, NNRTI = non-nucleoside reverse transcriptase inhibitor, PI = protease inhibitor, SD = standard deviation
[a] INSTIs included bictegravir, elvitegravir, dolutegravir, and elvitegravir
[b] PIs included darunavir and atazanavir
[c] NNRTIs included efavirenz and rilpivirine

Conclusion. All antiretrovirals were linked to weight gain but INSTIs were associated with increased incidence of hypertension.

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880. Interim Analysis of 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-51. HIV: Treatment

Background. Trillium Health (TH) is a Federally Qualified Health Center look-alike and Ryan White C grantee in Rochester, NY providing primary and specialty care, including HIV prevention and treatment. Rapid Start Antiretroviral therapy (RSA) has been shown to decrease time to viral suppression while increasing linkage to and retention in care. However, data on a fixed-dose combination of BFTAF with these benefits are limited.

We aim to show RSA with BFTAF time to viral suppression, adherence to medication, and retention in care is statistically significant in comparison to older treatment models. Additionally, we aim to demonstrate the feasibility and acceptability of RSA with BFTAF.

Methods. This is an interim analysis of participants who enrolled in the study and been in care at TH for at least 3 months as of May 2021. All participants complete a baseline assessment and start BFTAF. Follow up visits are conducted through 48 weeks. Primary and secondary endpoints are included in the attached table 2 Barriers to care and patient reported outcomes were evaluated through a standardized questionnaire at the final study visit. Study results were compared with non-RSA historical control data from patients who received standard of care universal ART initiation at TH.