A Comparison of Viral Suppression Rates of Patients Receiving Long-Acting Injectable Antiretroviral Therapy (ART) Versus Oral Therapy

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Background

- Both the ATLAS and FLAIR open-labeled randomized trials showed that cabotegravir/rilpivirine effectively maintains viral suppression compared to oral antiretroviral therapy.
- Anecdotal reports from clinicians suggest that suppression of viral load with Cabotegravir/rilpivirine may be greater than with oral medications.
- The purpose of this study is to compare viral load of patients receiving oral antiretroviral therapy versus long-acting injectable antiretroviral therapy.
- The results of this study will help identify opportunities to optimize patient care, assess quality of life, and determine the cost-effectiveness of cabotegravir/rilpivirine versus oral therapies.

Objectives

Primary
- Determine viral undetectable rates and assess CD4 count at 60 days

Secondary
- Determine viral undetectable rates and assess CD4 count at 180 and 365 days
- Assess depression and quality of life scaled scores at 60, 180, and 365 days
- Compare adherence between oral and injectable antiretroviral therapy

Methods

Study Setting
- Maxor National Pharmacy Services has built and managed over 60 pharmacies nationally. A retrospective chart review with data from all applicable facilities within the corporation were assessed for inclusion from February 1, 2021, through August 31, 2023.

Inclusion Criteria
- Patients ≥ 18 years of age
- First documented dispense of long-acting injectable or oral therapy available within the internal medical record

Exclusion Criteria
- Patients having received < 6 months of oral and long-acting injectable therapy within the designated study time-frame
- Patients who are not on a combination integrase strand transfer inhibitor (INSTI) or nonnucleoside reverse transcriptase inhibitor (NNRTI) therapy

Data Collection & Analysis
- Patients were randomly selected to include a one-to-one ratio of patients in the long-acting injectable cohort and oral therapy cohort (with a goal of up to 50 patients per cohort).
- Baseline demographics, admission location, first documented dispense, medication dose/frequency, duration of therapy, adverse event reporting, medication adherence, viral load, CD4 count, resistance testing, Hepatitis B and C screening, liver function, complete blood count, kidney function, lipid panel, blood glucose, thyroid, blood pressure, copay card utilization, insurance type, and depression screening
- Data was analyzed using descriptive statistics.

References

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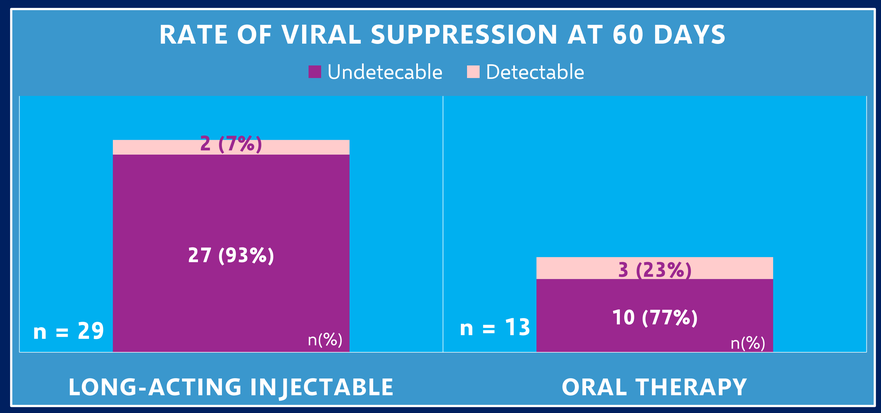
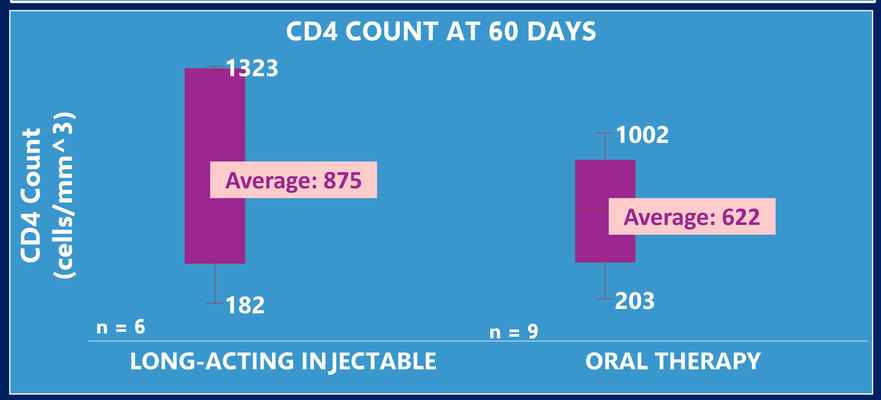
Results

Baseline Demographics	Long-Acting Injectable ART N=34	Oral ART N=34
Cis-Male (MAAB), n(%)	28 (82%)	24 (70%)
Trans-Female (MAAB), n(%)	6 (18%)	8 (24%)
Cis-Female(FAAB), n(%)	0 (0%)	1 (3%)
Trans-Male (FAAB), n(%)	0 (0%)	1 (3%)
Age, years, average (range)	42 (23-71)	38 (21-78)
Facility, n(%)		
Pharmacy A	28 (82%)	17 (50%)
Pharmacy B	5 (15%)	7 (21%)
Pharmacy C	1 (3%)	10 (29%)
ART Regimen Used, n(%)		
Cabotegravir, Rilpivirine	34 (100%)	-
Bictegravir, Emtricitabine, Tenofovir Alafenamide	-	31 (91%)
Elvitegravir, Cobicistat, Emtricitabine, Tenofovir Alafenamide	-	3 (9%)
Years of Previous ART, average (range)	6.5 (<1-35)	3.5 (0-30)
Baseline Viral Load < 20 copies/mL, n(%)	31 (91%)	17 (50%)
Baseline CD4 Count, average (range)	874 (168-1520)	597 (169-1155)
Baseline PHQ-2 Score, average (range)	0 (0)	0 (0-1)
Baseline Quality of Life Rating, average (range)	9 (9-10)	9 (5-10)





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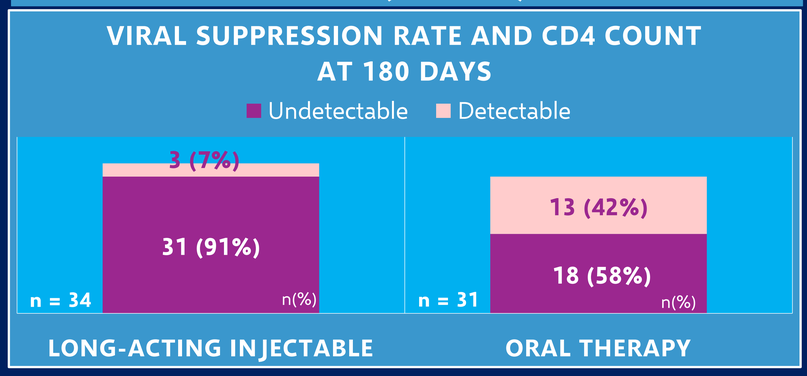

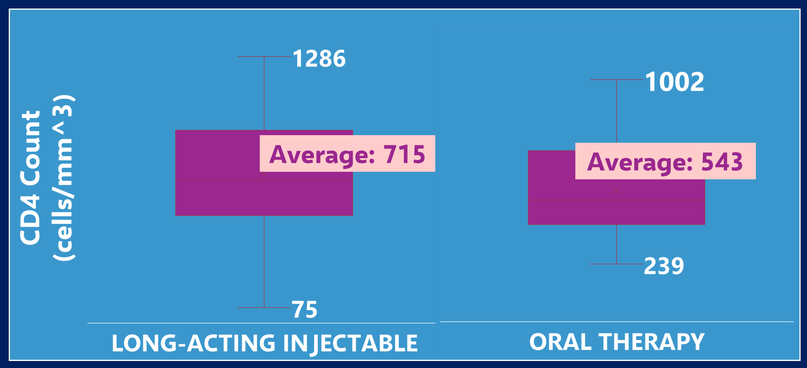

Depression Screening	Long Acting Injectable (n=34)	Oral Therapy (n=34)
PHQ-2 Score at 60 Days	Not Available	Not Available
Quality of Life Rating at 60 Days, average (range)	9 (9-10)	9 (7-10)
PHQ-2 Score at 180 Days, average (range)	0 (0)	0 (0)
Quality of Life Rating at 180 Days, average (range)		9 (8-10)

Limitations
- Lab data for requeste
- Target sample size o

Conclusions
- 60-day incidence o injectable cohort vs
- 180-day incidence injectable cohort vs
- Both cohorts CD4 co maintaining an averag
- While Morisky Medicati amongst both groups (LA of patient reported missed d oral therapy group (10) compare

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