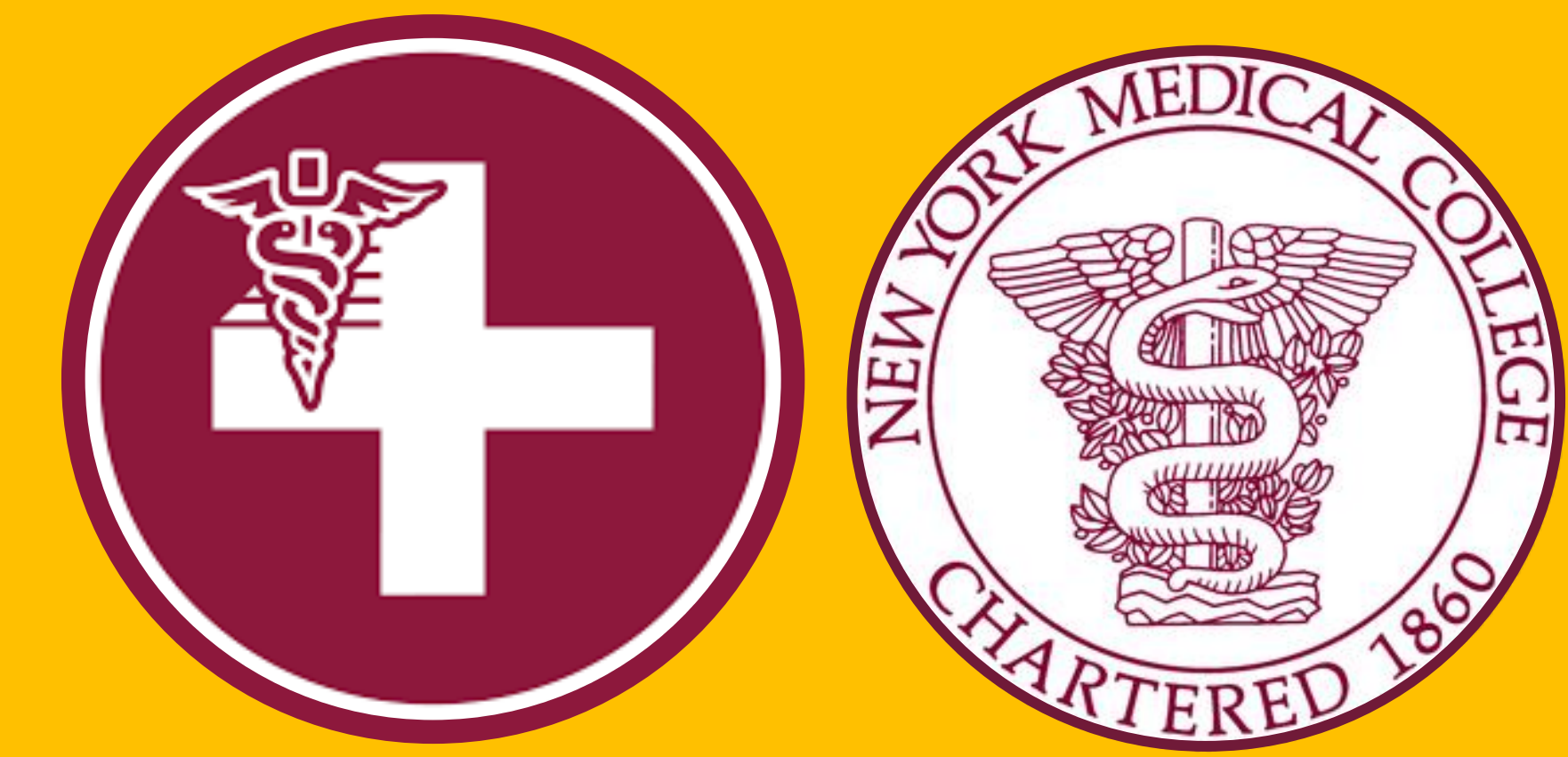


Real-World Biktarvy Use and Weight Change: A Single Center Retrospective Cohort Analysis

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Introduction

- ❖ Second generation integrase inhibitors (INI) and Tenofovir Alafenamide (TAF) have been linked to increased weight gain.
- ❖ Herein, we are interested in reviewing this relationship with Biktarvy use.

Methodology

Study Design

- ❖ Retrospective Cohort Study on all person living with HIV (PLWH) at our outpatient clinic who received a prescription for Biktarvy
- ❖ Study period: February 2018 to October 2020

Inclusion Criteria

- ❖ PLWH on Biktarvy therapy for at least 6 months
- ❖ Maintained low Viral load (< 200) indicating medication compliance

Exclusion Criteria

- ❖ Absence of above

Analysis

- ❖ Study population was stratified into 2 groups: those that gained $\geq 10\%$ weight, and $< 10\%$ weight from their baseline weights since the initiation of therapy.
- ❖ Demographic, clinical and laboratory data were reviewed and retrieved.
- ❖ Chi-square (χ) test was used to identify the associations between categorical variables.
- ❖ GraphPad Prism statistical software was used for all data analysis.

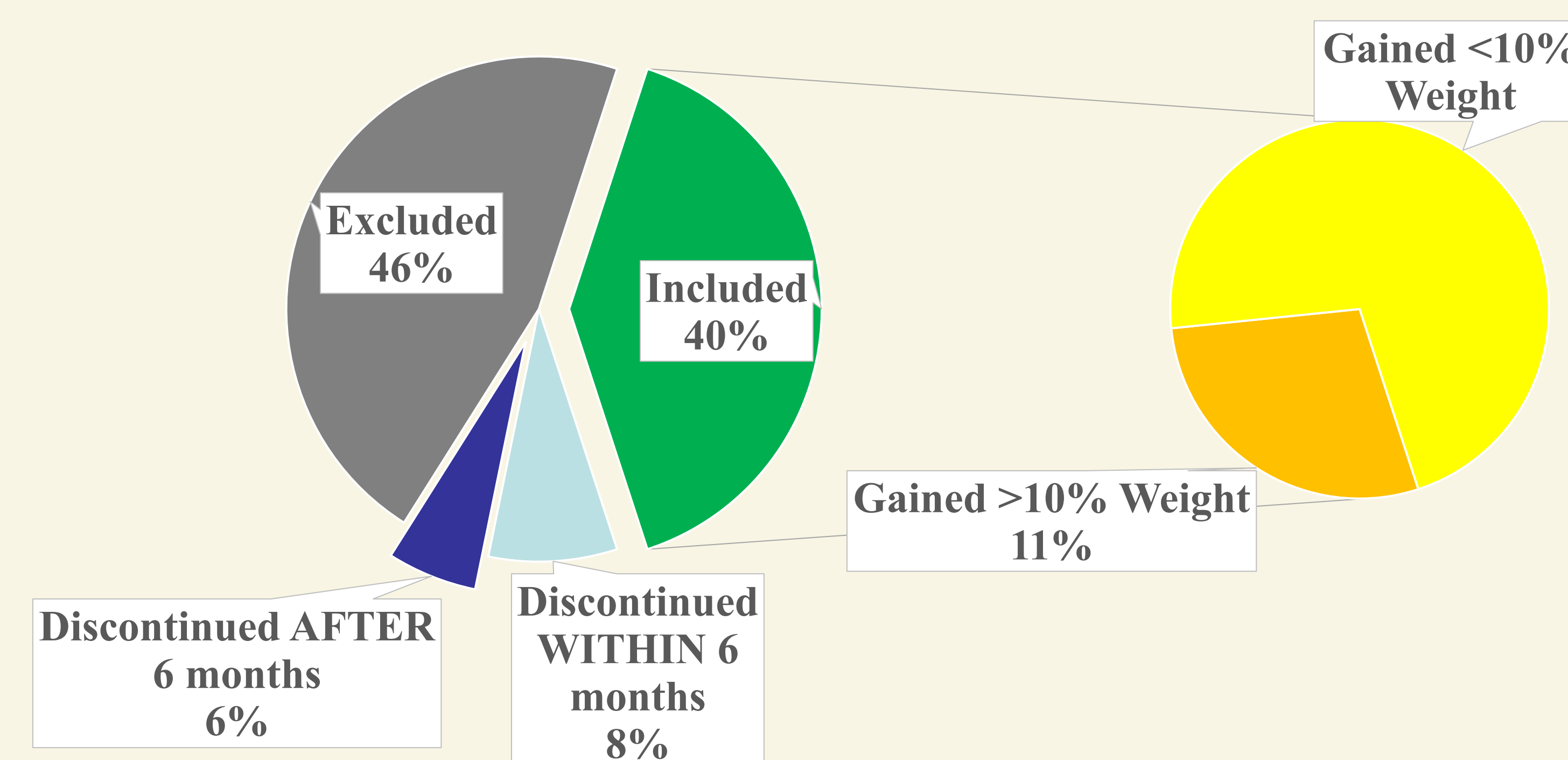
Results

- ❖ Out of the 608 PLWH that received a prescription for Biktarvy
 - ❖ 50 discontinued therapy within the first 6 months
 - ❖ 35 PLWH discontinued therapy after 6 months for various reasons (table 1)

Reasons	Number of PLWH
Poor renal function	13
Unknown	6
Viremia	6
Noncompliance	4
Weight gain	3
Gastrointestinal Symptoms	1
Changed meds due to cancer treatment	1
Insurance change	1

Table 1: Reasons and number of PLWH who discontinued therapy after 6 months

- ❖ Of the 523 PLWH with active prescriptions for Biktarvy
 - ❖ 280 PLWH were excluded from the study due to high viral loads indicating poor Biktarvy compliance, and insufficient therapy duration of less than 6 months.
 - ❖ Of the remaining 243 PLWH who met this inclusion criteria, 69 (28.4%) PLWH gained $\geq 10\%$ weight, while 174 (71.6%) PLWH gained $< 10\%$ weight.



Results

- ❖ Of those 69 PLWH who gained $\geq 10\%$ weight
 - ❖ Average time on therapy was 88.9 weeks
 - ❖ Average age was 51.7 years old.
 - ❖ There were 44 (64%) males and 25 (36%) females.
 - ❖ Majority are Blacks (64%), followed by Latinx (22%) and Whites (14%).
 - ❖ The switch from other HIV medications to Biktarvy and low CD4 counts (< 350) were associated with risk of weight gain (p-value were 0.0123 and < 0.0001 respectively)

		$> 10\%$ weight gain (n=69)	$< 10\%$ weight gain (n=174)	p-value
Time on therapy		88.9	87.9	0.8112
Gender	Male	44 (64%)	123 (71%)	0.2959
	Female	25 (36%)	51 (29%)	
Ethnicities	Black	44 (64%)	116 (67%)	0.0551
	Latinx	15 (22%)	46 (26%)	
	White	10 (14%)	10 (7%)	
Transition	Naïve	3 (4%)	28 (16%)	0.0123
	Switch	66 (96%)	144 (84%)	
Age		51.7	52	0.8696
CD4 count	< 350	29 (42%)	31 (18%)	< 0.0001
	> 350	40 (58%)	143 (82%)	

Table 2: Demographic and clinical characteristics of PLWH who has $> 10\%$ and $< 10\%$ weight change since the initiation of Biktarvy

Discussion and Conclusion

- ❖ Most common reason for discontinuation of Biktarvy therapy was poor renal function
- ❖ Low CD4 count (< 350) and the switch from other HIV medications to Biktarvy predicted 10% weight gain in our retrospective cohort analysis