

Long-Acting, Injectable Cabotegravir for HIV PrEP: A Conversation with Lead Investigator, Dr. Raphael Landovitz

Raphael Landovitz, MD
Professor of Medicine
UCLA Center for Clinical AIDS Research and Education

September 17, 2020

Disclosures

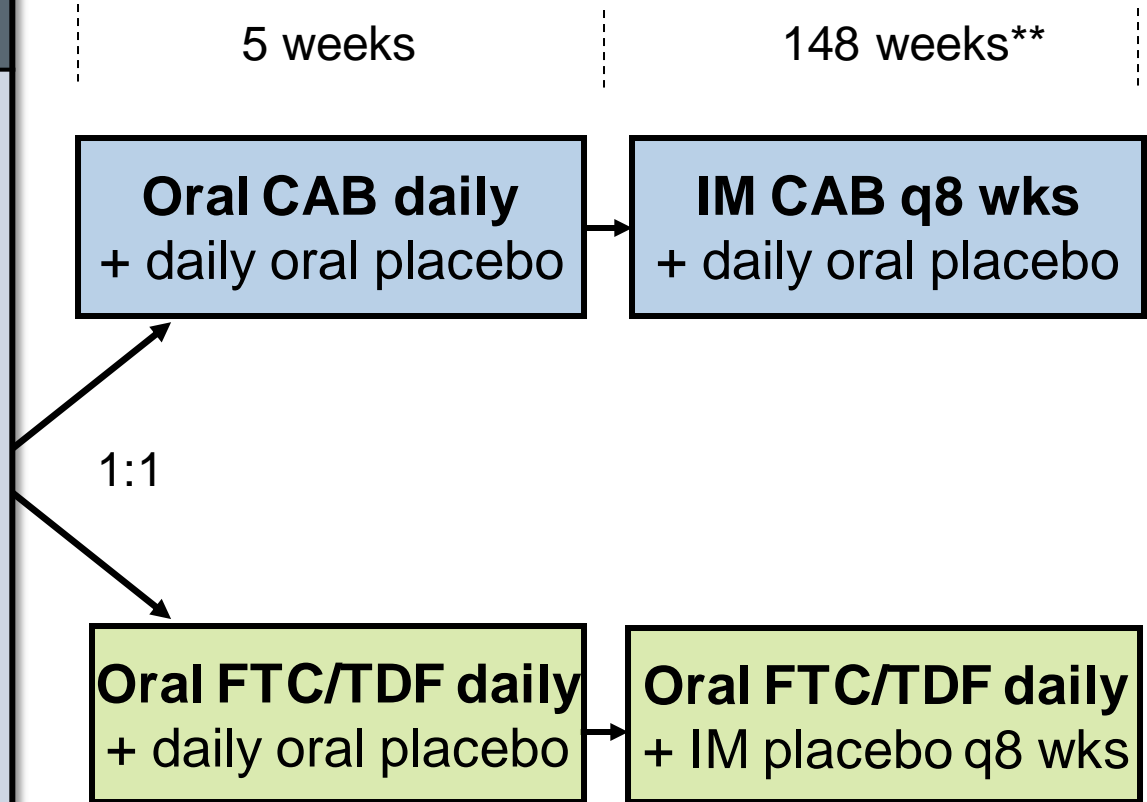
The speaker discloses Honoraria, Consulting, speaking and/or teaching, and participation in advisory committees and/or review panels for Gilead Sciences, Merck, and Roche.

IM CAB Every 2 Months vs Oral Daily FTC/TDF for HIV PrEP

HPTN 083: Study Design

Study Design

- Phase 2b/3, multinational, double blind, double dummy, randomized trial to assess efficacy of long-acting IM cabotegravir (CAB) compared to daily oral FTC/TDF for HIV PrEP
- Inclusion criteria:
 - MSM or TGW age ≥ 18
 - Substantial HIV risk*
 - Generally good health
 - No HBV or HCV
 - No contraindications to gluteal injections, seizures, gluteal tattoos or skin conditions



*Any CRAI, >5 partners, stimulant use, rectal or urethral STI or syphilis within past 6 months, SexPro Score ≤ 16

**Followed by 48 weeks oral FTC/TDF daily

IM CAB Every 2 Months vs Oral Daily FTC/TDF for HIV PrEP HPTN 083: Study Population

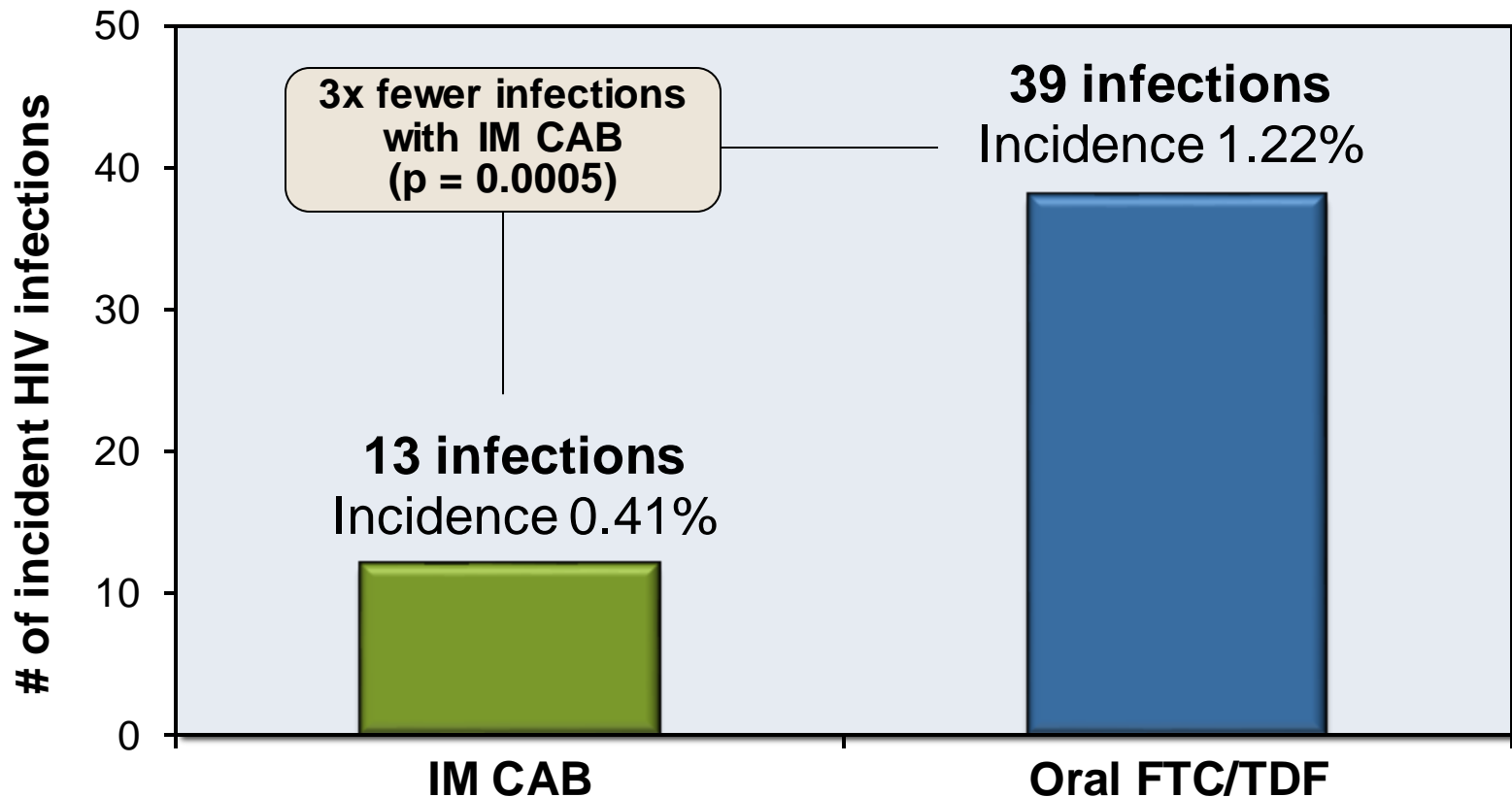
HPTN 083: Selected Baseline Demographics			
Characteristic	Total (n = 4566)	FTC/TDF (n = 2284)	CAB (n = 2282)
MSM	3995 (87.5)	1981 (86.7)	2014 (88.3)
TGW	567 (12.4)	302 (13.2)	265 (11.6)
Age, median (IQR)	25 (22,32)	26 (22,32)	26 (22,32)
Age 18-29	3079 (67.4)	1508 (66.0)	1571 (68.8)
Age 30-39	1049 (23)	550 (24.1)	499 (21.9)
United States	1698 (37.2)	849 (37.2)	849 (37.2)
Latin America	1964 (43.0)	984 (43.2)	980 (42.9)
Asia	752 (16.5)	377 (16.5)	375 (16.5)
Africa	152 (3.3)	74 (3.2)	78 (3.4)
In US: Black/African American	844 (49.7)	433 (51.0)	411 (48.9)

Abbreviations: MSM = men who have sex with men; TGW = transgender women; IQR = interquartile range
See conference slides for full baseline demographics.

Source: Landovitz R et al. AIDS2020 Abstract OAXLB01.



IM CAB Every 2 Months vs Oral Daily FTC/TDF for HIV PrEP HPTN 083: Results



Statistically significant difference; HR 0.34 (95% CI 0.18-0.62) favoring IM CAB

Median 1.4 years of participant follow-up (IQR 0.8,1.9)

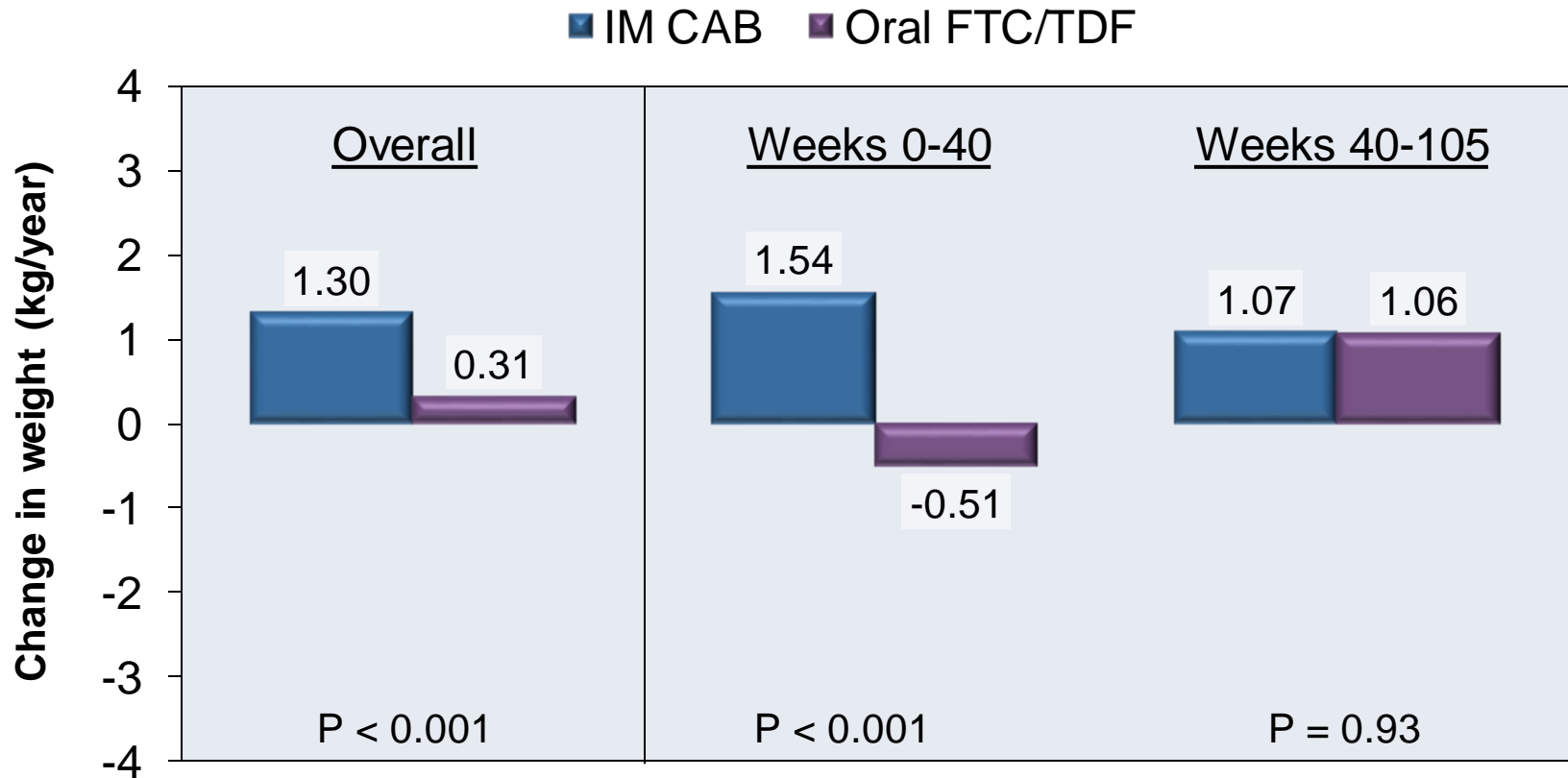
More injection site reactions in IM CAB arm, but only 2.2% discontinued

IM CAB Every 2 Months vs Oral Daily FTC/TDF for HIV PrEP HPTN 083: Results

- When did incident HIV infections occur in CAB arm?
 - 5 after “prolonged hiatus” from CAB
 - 3 during oral lead-in
 - **5 during continuous CAB administration**
- Were drug levels adequate in FTC/TDF arm?
 - Random sample of 372 participants
 - 87% detectable plasma tenofovir level
 - 75% levels correlated with high-level protection
 - $\approx 70\%$ levels suggestive of ≥ 4 doses per week by DBS

IM CAB Every 2 Months vs Oral Daily FTC/TDF for HIV PrEP HPTN 083: Results

Annualized weight change



IM CAB Every 2 Months vs Oral Daily FTC/TDF for HIV PrEP

HPTN 083: Investigator Conclusions

- Both agents were highly effective for HIV prevention
- CAB-LA was superior to daily oral FTC/TDF;
66% lower HIV risk with CAB compared to FTC/TDF
- Peri-infection drug concentrations and detailed resistance needed to fully understand and contextualize results
- First long-acting injectable agent to demonstrate robust HIV prevention efficacy in MSM and TGW

Injectable Cabotegravir for HIV PrEP

Outstanding Questions and Concerns

- Awaiting results for cisgender women (HPTN 084)
- Necessary oral lead-in? Oral tail?
 - Is “direct to inject” safe?
- Risk of missed doses?
 - Why did 5 HIV infections in CAB with good adherence occur?
 - Did these individuals acquire integrase resistance?
- Cost, timing of FDA evaluation, clinical logistics

Acknowledgment

The Mountain West AIDS Education and Training (MWAETC) program is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$2,911,844 with 0% financed with non-governmental sources.

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