Long-Acting PrEP: What we learned from CROI and what we still need to know

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Long-acting Cabotegravir for PrEP

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Cabotegravir for HIV Prevention in Cisgender Men and Transgender Women

Reduction in HIV incidence compared to F/TDF: 66%

Reduction in HIV incidence compared to F/TDF: 88%

What we know

LA CAB reduces incidence of HIV (compared to F/TDF) in cisgender women, cisgender men who have sex with men and transwomen at risk of HIV from sexual intercourse,
The first gap in data...

who have sex with men who were recruited for the trial were at high risk for HIV infection, as defined in the protocol. Key exclusion criteria were the use of illicit intravenous drugs within 90 days before enrollment, previous participation in the active treatment group of an HIV vaccine.
Overdose Deaths Reached Record High as the Pandemic Spread

More than 100,000 Americans died from drug overdoses in the yearlong period ending in April, government researchers said.
Other populations to remember...

- People who are incarcerated
- People with unstable housing
What we know

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What we know

LA CAB reduces incidence of HIV (compared to F/TDF) in cisgender women, cisgender men who have sex with men and transwomen at risk of HIV from sexual intercourse, who were willing to be enrolled in a trial of LA CAB,
Acceptability in HPTN 083 OLE

803 US Participants in OLE were given a choice

LA CAB
770 (95.9%)
- 70% preferred injections and did not like pills
- 15% CAB was superior to TDF/FTC
- 5% CAB was more convenient
- 4% wanted to avoid F/TF side effects

F/TDF
33 (4.1%)
- 52% didn’t like injections
- 12% thought side effects of F/TDF better described
- 12% concerned about resistance if CAB fails
- 12% scheduling challenges
What we don’t know about acceptability

Vulnerable populations who could benefit from LA PrEP

083 participants

Vulnerable populations who could benefit from LA PrEP
What we don’t know about acceptability

So, see them then, get injected or get the shot, and go on and not worry about it for a couple months. That’s awesome. That’s better than taking something every day. Providence, cisgender woman

Oh, no, no, no, no, no. The only one that sticks me with needles is me and my tattoo artist. [LAUGH] Oh no, I’ll stick with the pill. Providence, cisgender man

083 participants

Vulnerable populations who could benefit from LA PrEP
How do we measure acceptability?

- Would you be willing to take an injection to prevent HIV infection?
  - And there is a very high probability you will have an injection site reaction but will resolve in about 3 days?
  - And you will need to take oral tablets for up to a year after you stop injections?
  - And there is a possibility that you might still get infected?

- And acceptability from a provider perspective too!
What we know

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and visit a clinical research site for their injections
Optimizing the delivery of LA CAB

LA Times, Jan 1 2023; Barnabas, Lancet HIV 2022
What we know

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Whether or not LA CAB is cost-saving depends on the pricing of LA CAB vs. generic F/TDF
What we know

- Can it be cost saving?

"...we found that at a range of willingness-to-pay thresholds ($50,000 to $300,000 per QALY), CAB-LA for PrEP among MSM/TGW at VHR would only provide good value for money if its annual price was less than $3000 to $6600 higher than generic F/TDF.”

"...The cost per CAB-LA injection needed to be less than twice that of a 2-month supply of TDF/FTC to remain as cost-effective, with threshold prices ranging between $8.99/injection (high coverage; maximum duration) and $14.21/injection (medium coverage; minimum duration)."
What we still need to know...

Marrazzo #163

- Adherence??
- Duration of use?

2+1+1
q2m
Adherence and HIV incidence in 6000 women

Cross-sectional Objective and Subjective Adherence by Visit (n = 2955)

- Objective (DBS), n=237
  - Participants, %
  - Week: 16, 32, 48, 64, 80, 96

- By both measures, overall adherence decreased over time.
- Higher adherence reported with subjective measures.

HIV Incidence Rates Among Women with Available Adherence Data (n = 2955)

- Consistently Daily: 0 / 498
- Consistently High: 1 / 658
- High, but Declining: 6 / 1166
- Consistently Low: 5 / 632

- HIV Incidence per 100 PY (95% CI):
  - Consistently Daily: 0.13 (0.02-0.92)
  - Consistently High: 0.49 (0.22-1.08)
  - Consistently Low: 1.27 (0.53-3.04)

Even with low incidence overall, higher patterns of adherence were directly associated with lower risk of HIV acquisition.

Calculated by Poisson regression.

CROI; February 19-22, 2023; Seattle, Washington

Marrazzo, CROI 2023 (Abstract # 163)
What we still need to know…

Adherence??

2+1+1

doxyPEP

q6m

q2m

Kakande #124; Kamya #128

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Molina #119; Stewart #121

Riddler #164

Grattoni #165

Duration of use?

Marrazzo #163

Biello KB, AIDS Care 2019

#163 Kakande

#124 Kamya

#128

#165 Grattoni

#121 Stewart

#119 Molina
Where does LA CAB fit in?

HIV
Sexually transmitted infections
Hepatitis B
Hepatitis C
Tuberculosis
Non-communicable Diseases

Oral ART
LA ART
Management of STIs
Oral PrEP
2-1-1 PrEP

LA PrEP
DoxyPEP
HCV DAA

Harm Reduction
Clean needles/ syringes
Naloxone
Condoms
FTS

Pharmacotherapy
Methadone
Buprenorphine/Naloxone
LA MOUD
Bupropion
Naltrexone ER

Biomedical

Diagnostics
HIV
Sexually transmitted infections
Hepatitis B
Hepatitis C
Tuberculosis
Non-communicable Diseases

Sociostructural Determinants
Housing
Unemployment
Food
Stigma
Violence
Mental Health Support
Legal assistance
Access to vaccines

Behavioral
HIV risk reduction counseling
Overdose prevention
Cognitive Behavioral Therapy
Motivational interviewing
Contingency management

IAS
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