HIV Update for the Conscientious Correctional Manager

AIDS Treatment: Past the Crisis Into the Future

*NCCHC Clinical Updates, Atlanta GA**

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Disclosures

Potentially competing interests in past year, nature of the financial relationship:

1. **bioLytical Laboratories Inc**. provided HIV testing kits to DC jail for my research studies
2. **Gilead Sciences** provided research funds to Emory for research at DC jail
3. **Mercy Care Atlanta** (local FQHC for persons experiencing homelessness) pays me to provide HIV care

Acknowledgments: Drs. Byron Kelly, Matthew Akiyama, Ank Nijhawan—recent discussions about Long Acting ART.

Objectives: Concepts and Strategies

1. Discuss the use of combination antiretroviral therapy to treat HIV
2. Explain the elements needed to develop individualized care programs and issues faced by special populations, such as female patients and persons about to leave
3. Identify non-AIDS comorbidities that people living with HIV may develop

Objectives

- Diagnosing HIV

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- Preventing HIV

Overview

* Brown thrasher is the state bird of Georgia

1. Diagnosing HIV

You can't treat what you aren't aware of

Roadrunner: Fastest bird in North America

Emperor Penguin: can go 2 months without a meal…

2. Treating HIV—What's current

- How and what to start
- Injectable, long-acting regimens
- Upcoming long-acting regimens

Individualizing HIV Treatment

- By Gender
- Obesity
- Highly treatment experienced

Dealing with Conditions that are Co-morbid with HIV

- Obesity on treatment
- Diabetes
- Heart disease

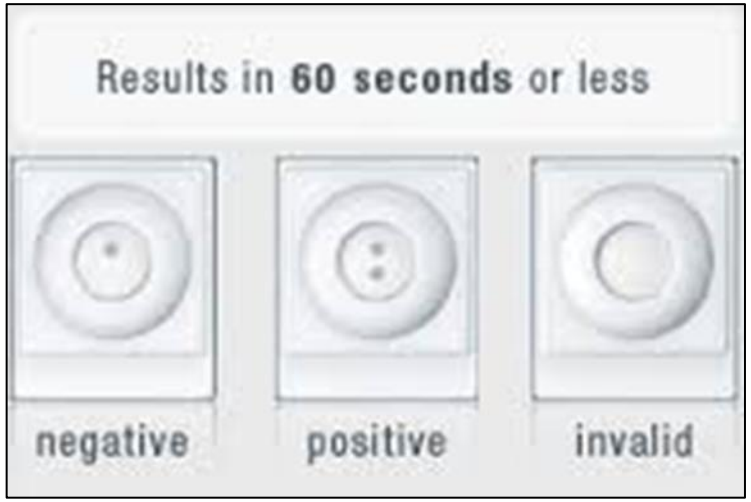
Preventing HIV

PrEP for Corrections

1. Diagnosing HIV

You can’t treat what you aren’t aware of

HIV Testing: Use rapid testing in rapidly churning jails located in areas of high prevalence of undiagnosed HIV; laboratory-based testing in prisons.



Establishing an HIV Screening Program Led by Staff Nurses in a County Jail

Anne C. Spaulding, MD, MPH; Min Jung Kim, MPH; Kiemesha T. Corpening, MPH; Taptolia Carpenter, LPN; Portia Watlington, LPN; Chava J. Bowden, BS

Context: Human immunodeficiency virus (HIV) testing in jails provides an opportunity to reach individuals outside the scope of traditional screening programs. The rapid turnover of jail populations has, in the past, been a formidable barrier to offering routine access to testing. **Objective:** To establish an opt-out, rapid HIV testing program, led by nurses on the jail staff, that would provide undiagnosed yet infected detainees opportunities to learn their status regardless of their hour of entry and duration of stay. **Design:** Jail nurses offered rapid, opt-out HIV testing. **Setting:** Fulton County Jail in Georgia, United States. **Participants:** A total of 30 316 persons booked to Fulton County Jail. **Intervention:** In late 2010, we performed a preliminary evaluation of HIV seroprevalence. Starting January 1, 2011, HIV testing via rapid oral mucosal swab was offered to entrants. In March 2013, finger stick was substituted. Detainees identified as positives were assisted with linkage to care. **Main Outcome Measures:** To estimate an upper limit of overall HIV prevalence among entrants, we determined seroprevalence by age and gender group. To measure program performance, we checked offer and acceptance rates for tests and rate of linkage to care among previously known and newly identified HIV+ detainees. **Results:** The initial seroprevalence of HIV in Fulton County Jail was at least 2.18%. Between March 2013 and February 2014, 89 new confirmed positives were identified through testing. successfully identified new HIV diagnoses. The testing program substantially decreased the number of persons who are HIV-infected but unaware of their status and promoted linkage to care.

KEY WORDS: **HIV, HIV testing, incarceration, jail, linkage**

In the United States, the epidemics of incarceration and human immunodeficiency virus (HIV) overlap. Nationally, approximately 1 in 6 persons infected with HIV spends time in a correctional facility over the course of a year.[1] This overlap can be explained in part by which demographic groups are most affected by each epidemic. Incarceration rates are higher among men than among women, among blacks than among whites, and Southerners than those from other regions of the country.[2] Incidence of new HIV is higher in men than in women and in blacks than in whites, and the epidemic is spreading fastest in the southeast.[3] Not surprisingly, jails in the southeast have been a high-yield venue for HIV case finding.[4,5]

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The study was funded by FOCUS program of Gilead Sciences and the National Institute of Allergy and Infectious Disease through the Emory Center for AIDS

J Public Health Management Practice, 2015, 21(6), 538–545

NATURAL EXPERIMENT

Fulton County Jail Health Service Administrator blocked rapid testing (even when donated) because all tests except lab-based tests are “antiquated”.

Lab-based testing: 15 new diagnoses in 2018; only 12 notified of result.


PROJECT Q ATLANTA | Q MAGAZINE

Work It LGB K

NEWS

Fulton jail blocks rapid HIV tests, calls them ‘antiquated’

By Patrick Saunders | Nov 16, 2018 | 4:41 PM

Facebook 11 Twitter

RESEARCH ARTICLE

Costs and Consequences of Eliminating a Routine, Point-Of-Care HIV Screening Program in a High-Prevalence Jail

Angela B. Hutchinson, PhD, MPH,[1] Robin J. MacGowan, MPH,[1] Andrew D. Margolis, MPH,[1] Madeline G. Adee, MPH,[2] Wendy Wen, MPH,[3] Chava J. Bowden, BS,[2] Anne C. Spaulding, MD, MPH[2]

Introduction: This study aims to assess the public health impact of eliminating a longstanding routine HIV screening program and replacing it with targeted testing. In addition, costs, outcomes, and cost effectiveness of routine screening are compared with those of targeted testing in the Fulton County Jail, Atlanta, Georgia.

Methods: A published mathematical model was used to assess the cost effectiveness and public health impact of routine screening (March 2013–February 2014) compared with those of targeted testing (January 2018–December 2018) from a health system perspective. Costs, outcomes, and other model inputs were derived from the testing programs and the published literature, and the cost effectiveness analysis was conducted from 2019 to 2020.

and was cost saving. The missed opportunity to diagnose infections because routine screening was eliminated resulted in an estimated 8.4 additional HIV transmissions and $3.7 million in additional costs to the healthcare system.

Conclusions: Routine HIV screening in high-prevalence jails is cost effective and has a larger impact on public health than targeted testing. Prioritizing sustained funding for routine, jail-based HIV screening programs in high-prevalence areas may be important to realizing the national HIV prevention goals.

Am J Prev Med 2021;61(5S1):S32–S38. Published by Elsevier Inc. on behalf of American Journal of Preventive Medicine.

Attempt to Replicate Results

- DC Department of Corrections, after it replaced INSTI with laboratory testing at intake, in attempt to capture acute HIV.
- 2021-22 Study: re-introduce INSTI; perform INSTI+lab-based testing at intake.
- Outcome: COVID-19 happened. Prior to re-introducing INSTI, two new diagnoses resulted after patients left; one of two informed.
  - Churn slowed down, PLUS most patients aware of diagnosis because of frequent testing in DC. No new diagnoses via INSTI w/o lab test results before release.

LESSON LEARNED: When you've seen one jail, you've seen one jail.

Roadrunner: Fastest bird in North America

Emperor Penguin: can go 2 months without a meal…

2. Treating HIV—What's current

- How and what to start
- Injectable, long-acting regimens
- Upcoming long-acting regimens

HOW to start, 2022:  "Rapid entry into care"

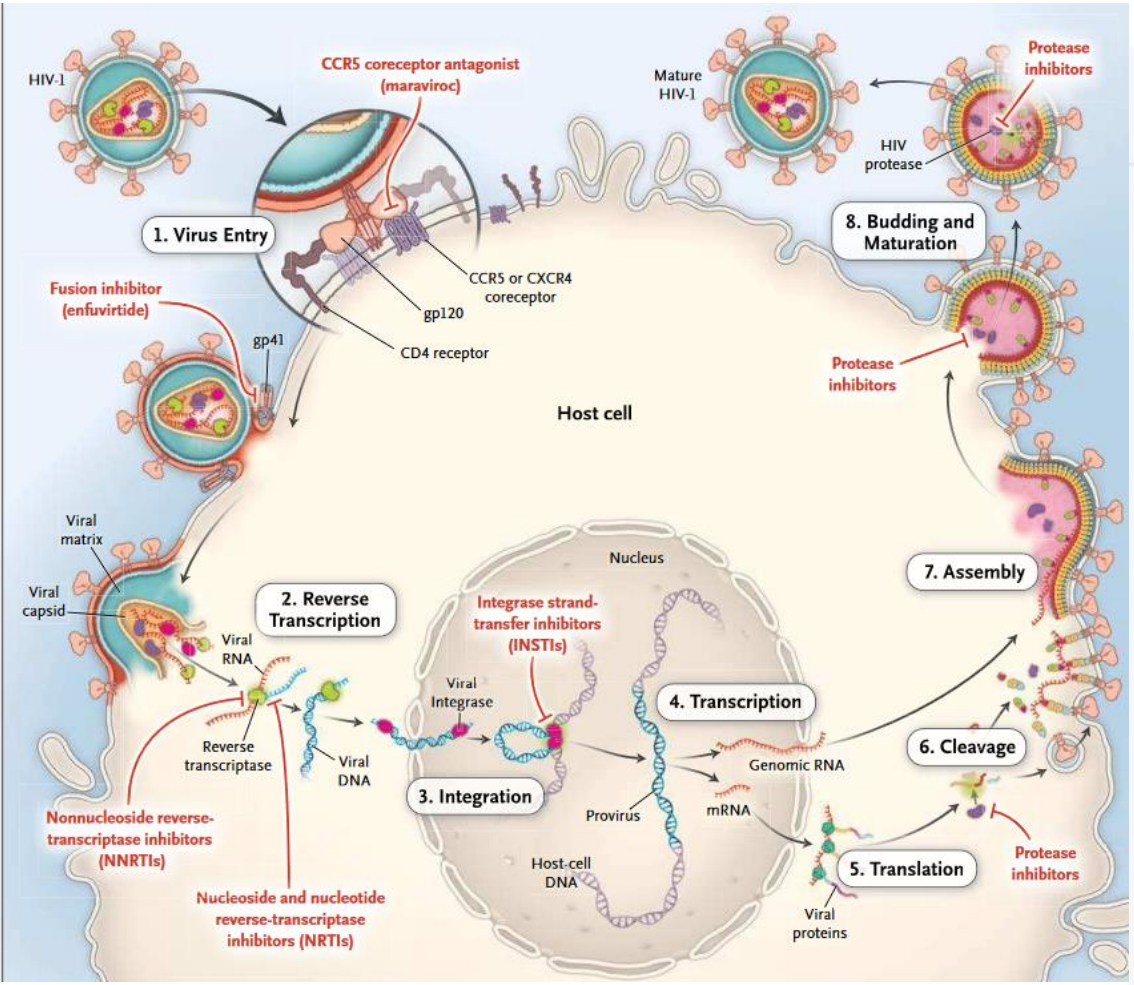
- Medications usually started at first visit.
- Better outcomes: adherence, mortality.
- Draw labs and start (healthy) person once HIV diagnosed/confirmed.
  - HIV antibody testing (if prior documentation is not available);
  - CD4 T lymphocyte cell count;
  - Plasma HIV RNA (viral load);
  - Complete blood count, chemistry profile, transaminase levels, blood urea nitrogen (BUN), and creatinine, urinalysis, and serologies for hepatitis A, B, and C viruses;
  - Fasting blood glucose and serum lipids; and
  - Genotypic resistance testing

WHAT TO START, April 2022. Use an Integrase Inhibitor

The Panel on Antiretroviral Guidelines for Adults and Adolescents (the Panel) classifies the following regimens as Recommended Initial Regimens for Most People with HIV (in alphabetical order):

- Bictegravir/tenofovir alafenamide/emtricitabine [chosen by ~80% Rx'ers]
- Dolutegravir/abacavir/lamivudine
  - only for individuals who are HLA-B*5701 negative and without chronic hepatitis B virus (HBV) coinfection
- Dolutegravir plus (emtricitabine or lamivudine) plus (tenofovir alafenamide [TAF] or tenofovir disoproxil fumarate [TDF])
  - Multiple pills
- Dolutegravir/lamivudine
  - except for individuals with HIV RNA >500,000 copies/mL, HBV coinfection, or when ART is to be started before the results of HIV genotypic resistance testing for reverse transcriptase or HBV testing are available.

Starting Regimen



Active poll 131

ARS Question 1: Which regimen would you choose?

TAF/ FTC / BIC (fdc) 73%

TAF/ FTC (fdc) + DTG 13%

3TC/DTG (fdc) 5%

TDF/ FTC (fdc) + DTG 3%

TAF / FTC/ ELV / cobi (fdc) 2%

Cabotegravir + RPV IM every 8 weeks (Direct to Inject) 2%

ABC/ 3TC / DTG (fdc)

CASE STUDY

50 year old man living with HIV, previously known to your facility, returns to your jail for the first time this year. HIV diagnosed decades ago, his CD4 last visit with you was in the 500's. He is always adherent to his therapy and keeps regular visits to a local Ryan White clinic when he is in the community.

You: "Are you still on Bictegravir, tenofovir and emtricitabine?"

Patient: "Oh, I'm on injectables now, and I love it!"*

*Quote from 5% of my patients at my FQHC

Poll: What To Do with the Entrant on Cabotegravir and Rilpivirine Injections Every 2 Months?

A. Confirm when last dose injection given and next dose is due.
B. Provide no oral ART if next dose is not yet due
C. Provide any acceptable regimen with an integrase inhibitor backbone once next dose is due.
D. Inject cabotegravir and rilpivirine if next dose is now due.
E. Provide oral cabotegravir and oral rilpivirine.

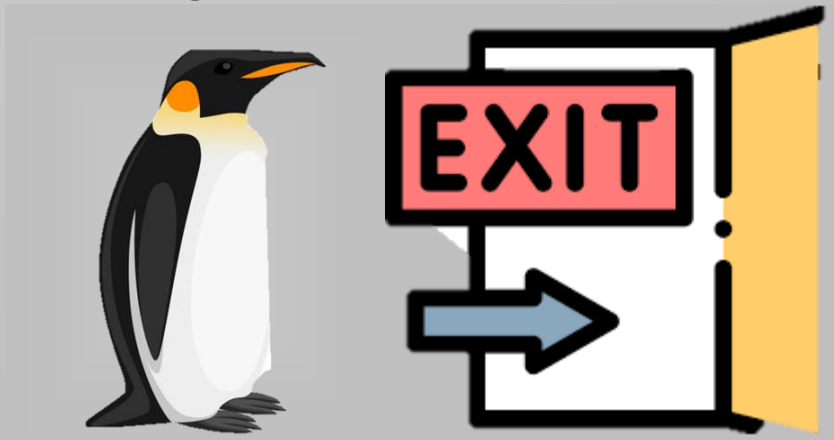
Poll answer:
You're right!! No matter what you chose…

A. Confirm when last dose injection given and next dose is due.
B. Provide no oral ART if next dose is not yet due
C. Provide any acceptable regimen with an integrase inhibitor backbone once next dose is due.
D. Inject cabotegravir and rilpivirine if next dose is now due.
E. Provide oral cabotegravir and oral rilpivirine. (But this is not practical—oral forms marketed only as a lead in…)

Is a Cabotegravir + Rilpivirine an appropriate drug at release? A gray area?

A. **Sure, if patient still not yet due for next dose**

B. **Perhaps, if there is good coordination between community and corrections provider…will likely take creative financing to give the $7,500 dose before exiting the jail door…or the prison door.**



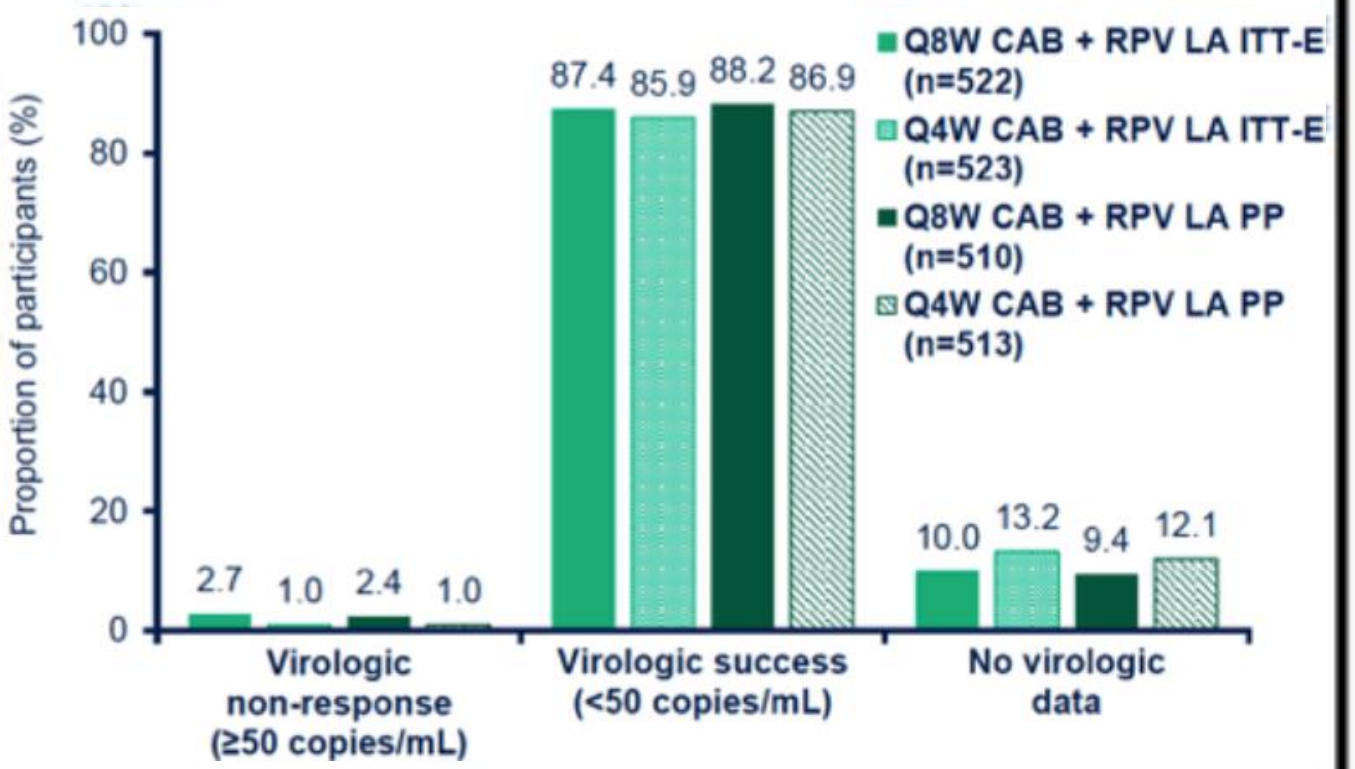
Conference on Retroviruses and Opportunistic Infections Headlines 2022

1. Cabotegravir and Rilpivirine intramuscular dosing every 2 months equivalent to dosing every month

   (and cabotegravir for pre-exposure prophylaxis)

ATLAS-2M: 152 Week Results

- Phase 3 open-label trial in PWH suppressed on CAB/RPV LA Q4W (n=391) or oral ART (n=654)
- Randomized: CAB/RPV LA q4W or Q8W
- CAB/RPV Q8W non-inferior to Q4W
- Through week 152, 13 participants had confirmed virologic failure: q8W n=11 (2%); q4W, n=2 (<1%)
- 11/13: resistance to CAB and/or RPV
- Risk factors for CVF include: proviral RPV RAMs, BMI >30, subtype A6/A1



New ART

Source: IAS-USA CROI Updates Course

Overton, E, CROI 2022, Abstract 479

Conference on Retroviruses and Opportunistic Infections Headlines 2022

1. Cabotegravir and Rilpivirine intramuscular dosing every 2 months equivalent to dosing every month

   (and cabotegravir for pre-exposure prophylaxis)
2. Islatravir—once weekly dosing (on hold, CD4 count drops…)
3. Lenacapvir—capsid inhibitor—dosing once every six months

   (temporarily on hold…issue with glass vial packaging)
4. Another patient cured—after stem cell transplant….

Individualizing HIV Treatment

- By Gender
- Obesity
- Highly treatment experienced

Individualizing HIV Treatment… by Gender

Persons of childbearing potential…

Dolutegravir is safe, and may be the best choice for good outcomes in the newborn.

Individualizing HIV Treatment…for the Obese

1. Integrase Inhibitors associated with obesity. Bictegravir is the biggest culprit.

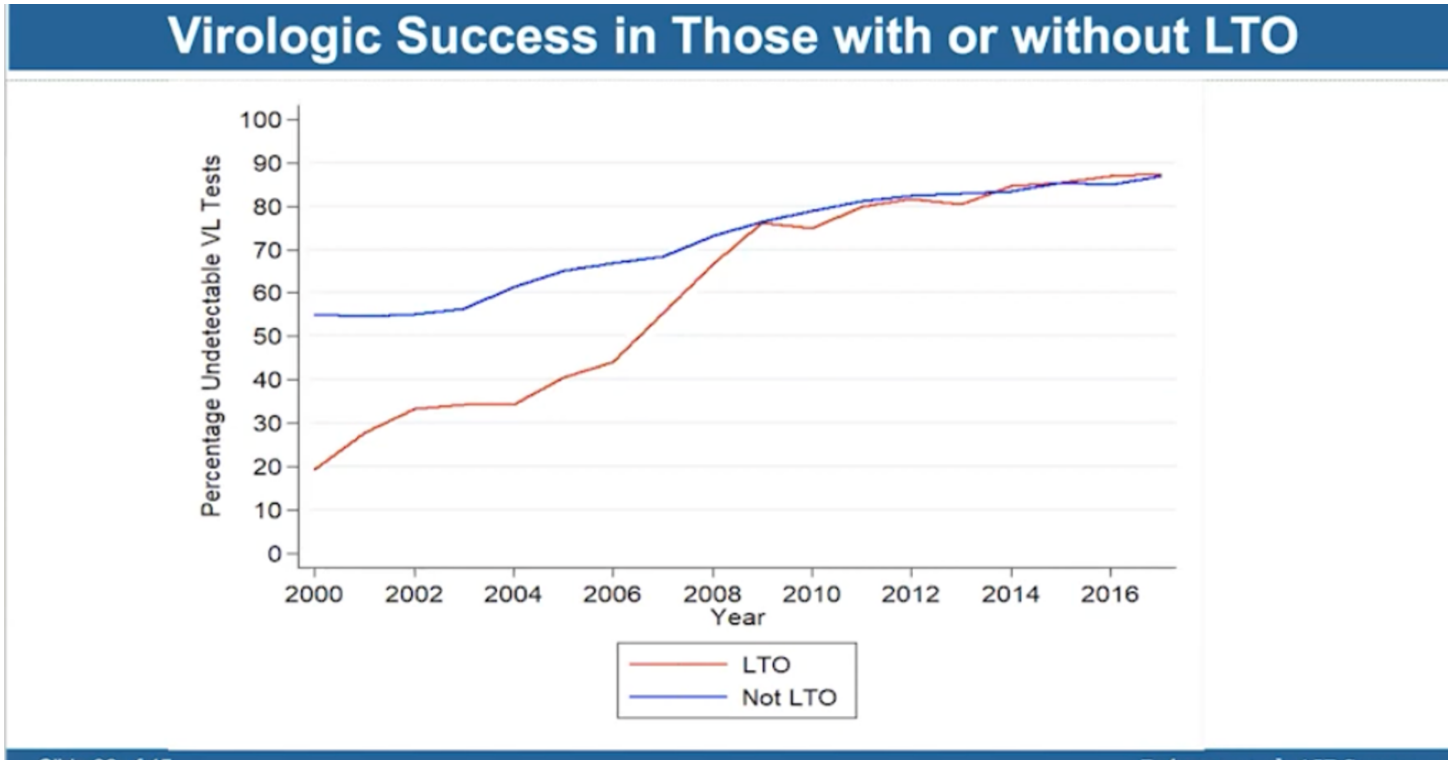
2. TAF (new form of tenofovir) associated with more obesity than TDF (old form of obesity).

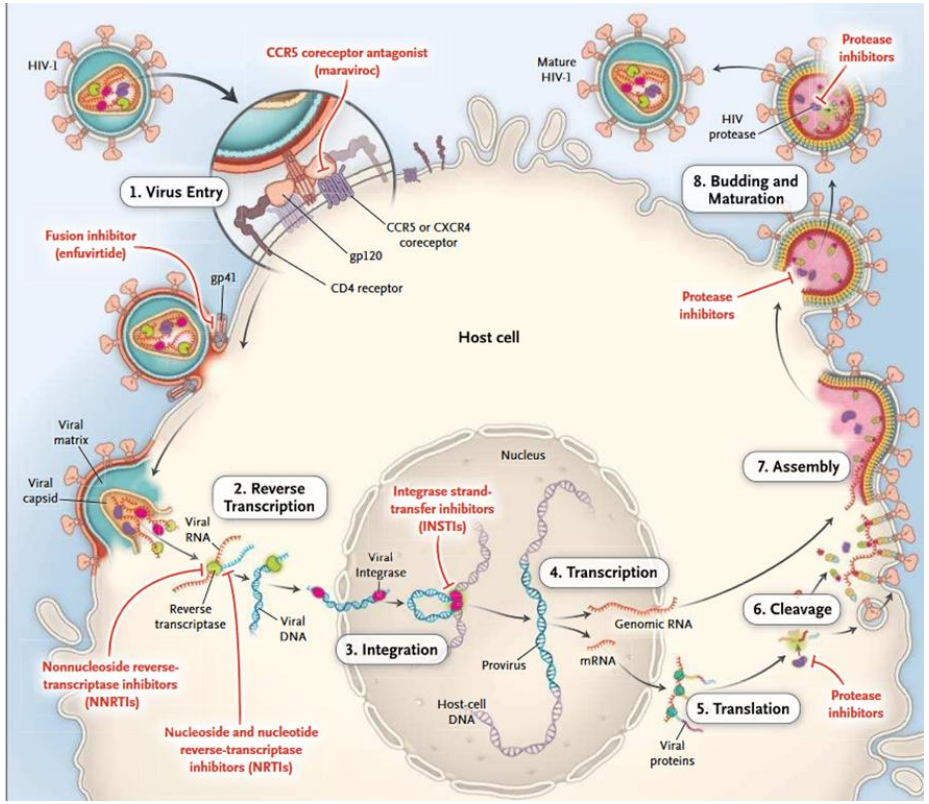
3. Cabotegravir injections not appropriate for patients with BMI > 30.

Individualizing HIV Treatment
…Highly treatment experienced

Almost all, even with Limited Treatment Options (LTO)

can attain viral suppression.





Source: IAS-USA CROI Update

Help is a phone call away!
800-933-3413

Dealing with Conditions that are Co-morbid with HIV

- Obesity on treatment
- Diabetes
- Heart disease

Obesity Treatment, Diabetes Management… after starting Integrase Inhibitor

1. Switching to a new regimen less associated with weight gain alone does not reverse weight gain.

2. Counsel patients about this side effect before starting.

   Be vigilant with monitoring diet, exercise.

Heart Disease and HIV

Risk factors:

1. Abacavir?
2. Obesity→ diabetes, hypercholesterolemia
3. Aging → hypertension
4. COVID-19 Lockdowns→ obesity (see #2)
5. Smoking

Most important: Smoking cessation. Not just while incarcerated, but have plan to not restart smoking after incarceration.

Hepatitis C and HIV

Come to 5 pm plenary: Prevalent Infectious Diseases in Corrections.

Preventing HIV

PrEP for Corrections

HIV Prevention?

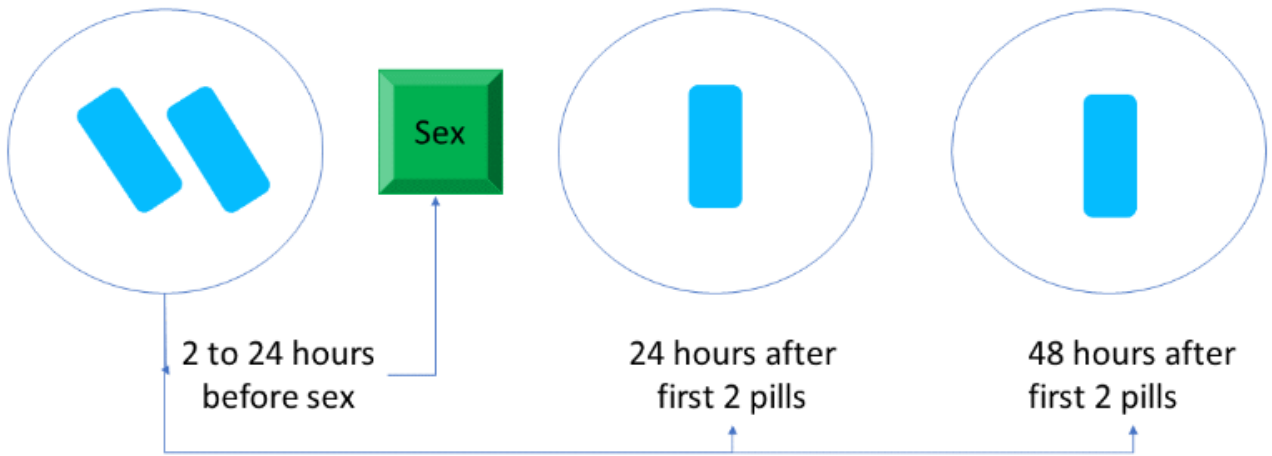
- “Is that our concern? Estelle v. Gamble just says no deliberate indifference to existing medical conditions.
- Best to give at least two days of oral PrEP after last sex act…

US Public Health Service

PREEXPOSURE PROPHYLAXIS FOR THE PREVENTION OF HIV INFECTION IN THE UNITED STATES – 2021 UPDATE

A CLINICAL PRACTICE GUIDELINE

Schedule for "2-1-1" Dosing

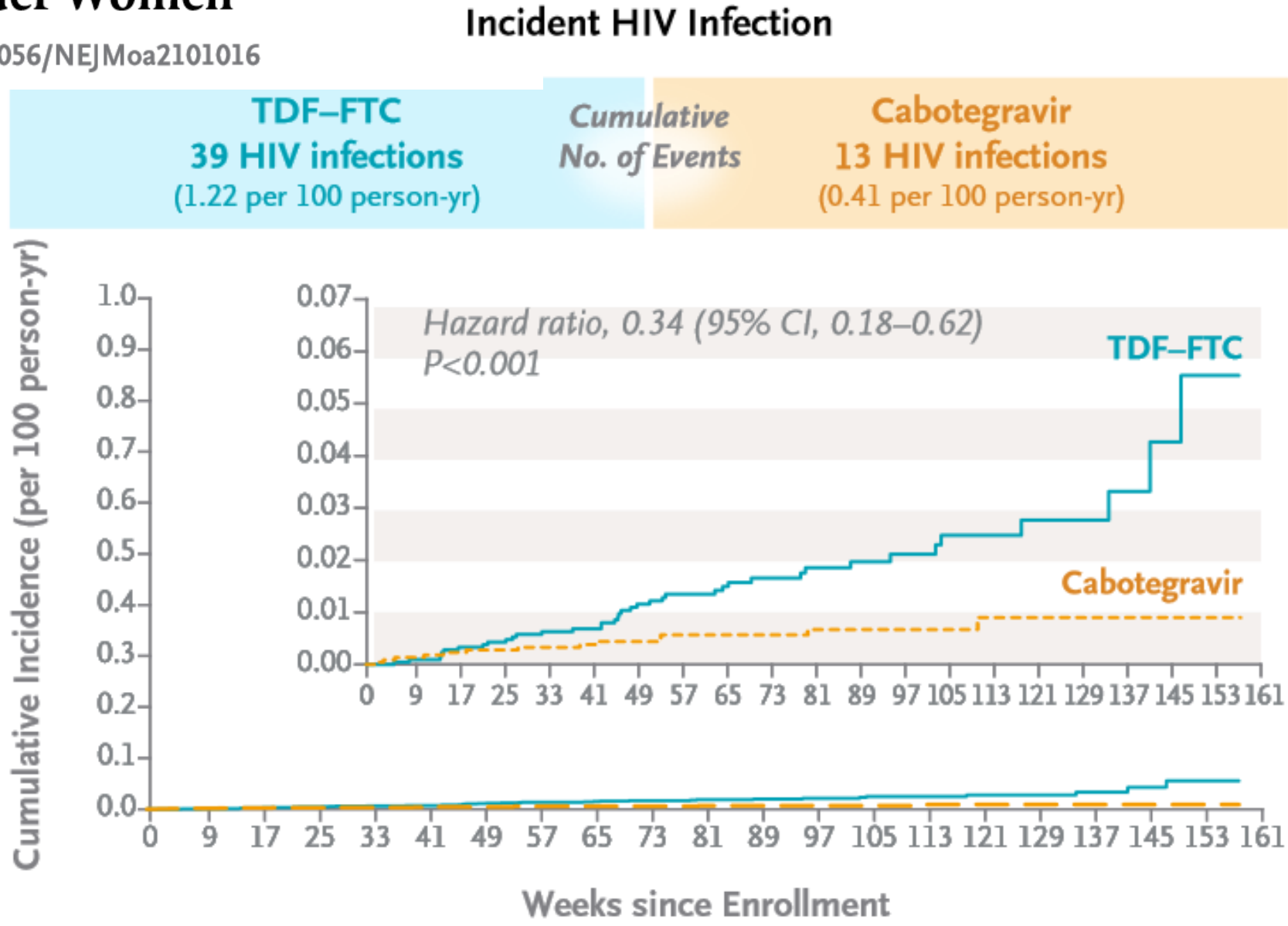


Based on the timing of subsequent sexual events, MSM should be instructed to take additional doses as follows:

- If sex occurs on the consecutive day after completing the 2-1-1 doses, take 1 pill per day until 48 hours after the last sexual event.
- If a gap of <7 days occurs between the last pill and the next sexual event, resume 1 pill daily.

Cabotegravir for HIV Prevention in Cisgender Men and Transgender Women

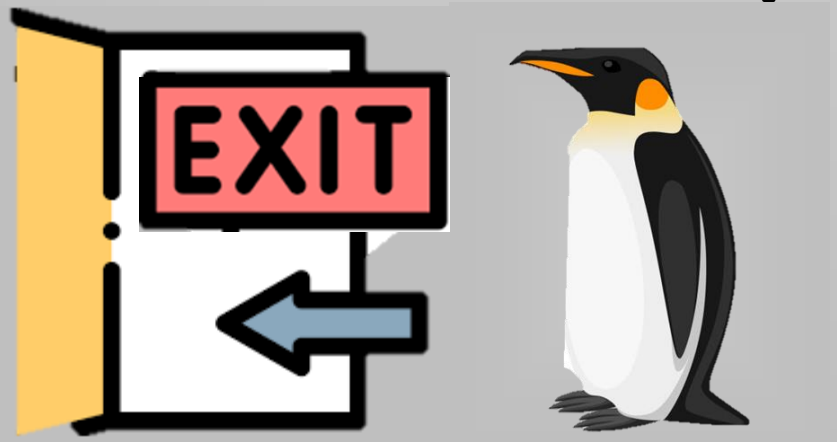
Landovitz RJ et al. DOI: 10.1056/NEJMoa2101016



Should we give Cabotegravir at release to the person w/o HIV, but at high risk of seroconversion?

A. Sure, if patient still not yet due for next dose

B. Perhaps, if there is good coordination between community and corrections provider…will likely take creative financing before exiting the jail door…or the prison door.



C. We give Naltrexone at the door, can we give another long-acting medication?

Questions?

See you in L.V. Nevada, October 2022!

Mountain Bluebird
State Bird of Nevada