Mitigating HIV Transmission During Analytic Treatment Interruptions (ATIs)

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- amfAR Cure Institute/UCSF Studies
- ATIs The Gold Standard
- Risk of HIV Partner Transmission during ATIs
- Recent ATI Trial HIV Transmission Cases
- PrEP to Prevent HIV Transmission: Challenges
- PrEP Implementation Recommendations for Partners
- Limitations of the Paper
- Future Studies

• amfAR Cure Institute/UCSF Cure Related Studies

 Combinatorial therapy with a conserved element DNA vaccine, MVA vaccine boost, TLR9 agonist and broadly neutralizing antibodies: A proof-of-concept study aimed at inducing an HIV remission (JAWS)

 Socio-Behavioral Sciences Sub-Study, Karine Dube, John Sauceda, Lynda Dee, Jeff Taylor, Danielle Campbell

- amfAR Cure Institute/UCSF Cure Related Studies
- Peluso MJ, Dee L, Campbell D, Taylor J, Hoh R, Rutishauser RL, Sauceda J, Deeks SG, Dube K. A collaborative, multidisciplinary approach to HIV transmission risk mitigation during analytic treatment interruption. J Virus Erad; 2020;6:34-37
- Practical starting point to address HIV transmission risk mitigation during ATI studies that describes strategies we are utilizing in an upcoming clinical trial that may be applicable to some other centers.

- ATIs The Gold Standard
 - No standardized way to measure latent virus
 - No validated or universally accepted assay
 - Many assays with different pro and cons
 - Immune reconstitution efforts
 - Chronically infected patients
 - Boosting the immune during studies

- Risk of HIV Transmission during ATIs
 - Undetectable status lost during ATIs
 - Possible adverse health implications
 - Risk of HIV transmission to partners
 - Negative impact on future ATI studies
 - Risk directly related to:
 - Duration of ATI
 - Peak levels of viremia during rebound

- Recent ATI Trial HIV Transmission Cases
 - France 2014: Male to female transmission
 - Spain 2016: Male to male transmission
 - Urgent need to mitigate study transmission risk
 - PrEP was unavailable during both studies

- PrEP Recommendations in JAWS Protocol
 - Standard Exclusion Criteria Example
 - Contraception plan to limit pregnancy is standard
 - Unacceptable Exclusion Criteria
 - Exclusion based on other sexual behaviors
 - Range of behaviors that may change any given time
 - Years of excluding patient who use drugs
 - Restart ART after repeated instances of STIs

- PrEP to Prevent Transmission: Challenges
- Study Participants
 - Difficulty Disclosing HIV status
 - Disclosure of HIV transmission risk during ATIs
 - Counseling is often generic and lacking in engagement
 - No consistency or follow-up
 - Anonymous partners

- PrEP to Prevent Transmission: Challenges
 - Partners of Study Participants
 - Outside the scope of research
 - Medical, regulatory, legal, financial issues
 - No direct uniform risk information to partners
 - No direct uniform risk mitigation effort
 - Counseling is usually generic, lacking in engagement
 - Lack of information on most effective approaches

- ATI Transmission Prevention Recommendations
 - Collaborative, multi-disciplinary approach involving close consultation among the biomedical study team, our community advisory board which included men and women with and affected by HIV, study participants, socio-behavioral scientists, and bioethicists.
 - PrEP intervention based on CDC HIV prevention recommendations

- PrEP Recommendations
 - Direct study team engagement across the study
 - To determine a "standard of prevention"
 - Testing and disclosure in serodiscordant couples
 - Collaboration of study team, participant, partner(s)
 - Creation of a study specific risk reduction packet
 - Potential model based on HIV prevention studies
 - Testing and disclosure in serodiscordant couples

- PrEP Recommendations for Participants
 - Hands on study team engagement throughout
 - Counseling and assistance available throughout
 - Disclosure Script
 - To facilitate HIV disclosure
 - To aid in describing scientific ATI transmission facts
 - Written PrEP facts and access info for partners
 - Repeated transmission counseling

- PrEP Recommendations for Partners
 - Hands on study team engagement with partners
 - Participants encouraged to engage partners
 - Invite partners to regular study visits
 - Partner participation at least 4 weeks prior to the ATI
 - Written PrEP facts and access info to partners
 - Study developed information sheets, including specially developed information for women

- PrEP Recommendations for Partners
 - Aggressive PrEP navigation assistance
 - Access to study physician to discuss PrEP issues
 - Initial and repeated transmission counseling
 - Direct referrals to one of several local PrEP sites
 - Various PrEP sites are available at UCSF
 - Warm hand-off to PrEP site at least 4 wks before ATI
 - Study site team accompanies partner to UCSF sites or directly connects partner to an off-site PrEP clinic

- PEP Recommendations for Partners
 - Aggressive PEP navigation assistance
 - Known possible HIV exposure
 - Study team will promptly facilitate PEP via established pathways as UCSF

- Limitations on Recommendations
 - Our study is based on widespread understanding of HIV transmission risks, universal testing, access to treatment and PrEP for prevention in men in SF.
 - Strong stakeholder support across the board and the political will to address these issues in SF.

- Limitations on Recommendations
 - Unknown PrEP use considerations in women
 - Unknown HIV status
 - Unaware of benefits of PrEP
 - Multiple or anonymous partners
 - Unwillingness of participants to disclose HIV status
 - Unwillingness to involve partners

- Limitations on Recommendations
 - No access to local research or PrEP access centers
 - Communities of color, especially in the Southern US
 - US rural settings
 - Resource limited settings where cure related research is likely to be conducted
 - It may be feasible for studies to include the cost of PrEP and PEP (Thailand is a great model.)

Future Directions

- Universal HIV testing, PrEP education and access are essential.
- The unique risks faced by women and people of color regarding PrEP referral, use and access are of particular importance.
- More behavioral research is needed to understand participants' values, motives and prevention practices, especially in women.
- More research is also needed to identify the experiences and preferences of participants' partners.

Future Directions

 Researchers must collaborate with their local communities to create plans that are consistent with local needs and cultures, including gender and sex dynamics, stigma and intimate partner violence.

THANK YOU!

Michael J, Peluso, MD Steven G. Deeks, MD

Karine Dube, DrPH, Mphil John Sauceda, MD

Danielle Campbell, MS Jeff Taylor

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ATI Participants Workshop Attendees

THANK YOU!



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