The Non-Prescribed, “Informal” Use of Antiretroviral Medication for HIV Prevention among Men Who Have Sex with Men in South Florida

BACKGROUND

- Antiretroviral medications (ARVs) are lifesaving medications used to treat HIV infection. One relatively understudied aspect of ARVs is diversion—the unlawful channeling of regulated pharmaceuticals from legal sources to the informal marketplace.
- ARV diversion has many serious consequences, both for patient safety and for public health, including HIV treatment failure, lack of viral suppression, an increased risk of HIV transmission, and the development or transmission of ARV-resistant strains.
- Pre-Exposure and Post-Exposure Prophylaxis (PrEP and PEM) are biomedical technologies used to prevent HIV infection. Results from the 2010 PrEP clinical trial demonstrated the efficacy of using Truvada for PrEP in the prevention of HIV infection among men who have sex with men (MSM).
- In the U.S., the Food and Drug Administration approved the use of Truvada for PrEP in 2012, and the Centers for Disease Control and Prevention issued detailed PrEP clinical guidance for healthcare providers in 2014.
- The lack of broad-based public health campaigns may result in misunderstandings of the efficacious use of PrEP for HIV prevention among MSM and broaden informal markets for ARVs medications for use among HIV-negative MSM for PrEP.
- Recent data collected by the authors suggests that MSM are obtaining ARVs in the informal market and taking them in an effort to prevent HIV infection.
- Despite previous studies, documenting widespread ARV diversion in Miami and emerging data suggesting that increasing awareness of PrEP is fueling the diversion of ARVs among MSM, no in-depth research of the phenomenon has been conducted.

METHODS

Purpose: The purpose of this analysis is to investigate the use of diverted ARVs among HIV-negative MSM to use for HIV prevention.

Methods: The data are drawn from a qualitative study of the scope and magnitude of the informal ARV market and use of non-prescribed ARVs for PrEP among MSM. A total of 30 in-depth, one-on-one interviews with HIV-negative MSM were conducted between September 2015 and May 2016.

Sensitivity: Eligible participants are age 18 or over and report: a) one or more anal sex partners in the past 90 days, including at least one condomless event and b) obtaining and taking diverted ARVs for HIV prevention.

Data collection and analysis: Participants were interviewed using a semi-structured protocol. A descriptive qualitative approach was being used to investigate the social ecological factors related to ARV diversion. Atlas.ti version 7 software was used for analysis.

RESULTS

Informal use practices

- "I take one... maybe an hour or so [before sex], like to let it take effect." — Tony
- "Russ takes ARVs during a party solo" when he would be consuming methamphetamine and engaging in sex.
- After sex
- Lasted Andrews described informally taking an ARV pill, given to them by their sex partners, immediately after sex.
- Paul noted that, “Usually within 24 hours I was able to procure a pill or two.”

Before and after sex
- Danny said, "I’ll talk to a sex partner... before drinking I would take [informal ARV] yesterday or two days before, and I’ll probably take it tomorrow or a couple of days after. There’s no schedule to it. I don’t know exactly how to take the medication.”

Daily / daily intermittent
- "I’ll take it probably twice a day. Just know, as a preventive measure.” — Chaz
- "I think his HIV-positive partner’s extra medication daily for a time, but he eventually decided to quit using the medication and only take it to the become infected with HIV.

Concerns about sufficient protection

- Ryan said informal ARV use made him feel "bulleproof" to date the interviewee he interviewed, "It actually knew someone with AIDS... would the [informal ARVs] actually work?"
- Danny said his informal use "kind of helped me mentally," but he later said, "I don’t feel like I’m taking it the right way. I don’t know much about it.”

Primary Motivations

- "Condom avoidance: ‘I don’t use the medicine is pretty much my prevention,’ — Emmett
- "You got this here that works 100% [ARVs] and this ain’t a medication.” — Kevin

Risk reduction
- "I would use it probably take it tomorrow or a couple of days after. There’s no schedule to it. I don’t know exactly how to take the medication.”

Limited knowledge about PrEP

- Five men were completely unaware of the existence of PrEP. "I was surprised to find out how many of my friends were taking ARVs in an effort to prevent HIV infection."
- "I don’t think of taking ARVs regularly could lead to the body becoming immune. It’s like penicillin. If every time you get some kind of virus or sore throat, penicillin is eventually not gonna work.”

DISCUSSION AND CONCLUSIONS

This is the first apparent study to examine the use of informal ARVs for HIV prevention among MSM. Although participants describe their attempts to prevent HIV infection, they are not engaged in frequent testing for regular health monitoring and ongoing behavioral support, which is recommended with prescribed PrEP use. Moreover, few participants described informal ARV use practices which cohere with PrEP or PEM regimen or CDC guidance. Participants also used a range of medications not approved for PrEP—Intermittent or sporadic use of ARVs, inconsistent access to medication and the use of medications not approved for PrEP may potentially leave men with less protection against HIV infection, contribute to HIV transmission, resistance or adverse effects.

Some limitations must be noted. Participants were drawn from a convenience sample in South Florida and the findings are not generalizable to other locations or populations. There is a potential for interviewer effects and the interviews training, experience, and use of a semi-structured interview guide likely mitigated these effects.

Given the potential of PrEP to prevent HIV infection, efforts should be made to enhance access. As more MSM begin using PrEP, informal ARV use and related concerns – including adherence, diversion, and ARV resistance—must be considered. Public health officials and community and social services agencies must increase PrEP awareness and accessibility and decrease informal use and diversion.

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