



AIDS Concern position statement on use of Pre-exposure Prophylaxis (PrEP)

Pre-exposure Prophylaxis (PrEP) is the use of HIV medication by someone who is HIV negative to prevent them from getting infected with HIV.

This position statement sets out AIDS Concern's views about the use of PrEP and what needs to be done for PrEP to be introduced as an effective additional HIV prevention method. AIDS Concern sees that PrEP could be a vital contribution to stopping new HIV infections and will be advocating for PrEP to be more available in Hong Kong in line with the position set out here.

Executive Summary

- Studies in a number of countries show that PrEP can effectively prevent HIV infections if used appropriately.
- In Hong Kong, there is limited access to PrEP as it is not available in public hospitals and can only be prescribed by private doctors.
- AIDS Concern supports combination approaches to HIV prevention and recognizes PrEP as an effective addition to the HIV prevention tools.
- AIDS Concern believes that it is essential to have more research and demonstration projects on PrEP in Hong Kong to begin prescribing to people at high risk and to understand how the drug can be best used to reduce the HIV epidemic.
- Urgent consideration should be given by the medical authorities in Hong Kong to the role PrEP is able to play in reducing the epidemic and access to PrEP through the public health system.
- It should be noted that this public position statement is not intended to give medical advice to individuals who are interested in taking PrEP. AIDS Concern encourages interested individuals to consult their doctors for advice directly. If you want to know about accessing PrEP, please read our information sheet.

PrEP as an effective additional approach in HIV prevention

Pre-Exposure Prophylaxis (PrEP) is a preventive medication which can stop HIV from making new virus as it enters the body and prevent the virus from establishing a permanent infection. It has been proved to be effective in reducing the risk of acquiring HIV sexually when used consistently. According to the English PROUD study in 2015, where a daily dosing schedule was used, the risk of HIV acquisition was reduced by 86% among the high risk men who have sex with men (MSM). Ipergay, a French study on PrEP that uses an 'on demand' dosing schedule, also showed a very similar high level of efficacy for PrEP. The two studies are a clear demonstration of the efficacy for PrEP in stopping HIV infections among the MSM community.

In light of the evidence of its effectiveness, PrEP is regarded by the US CDC and WHO as an important additional approach in HIV prevention. The US Centre for Disease Control and Prevention (CDC) has recommended PrEP to be used by people at high risk of HIV acquisition via sexual transmission or injection drug use. The World Health Organization (WHO) strongly recommends that PrEP be offered as 'an additional prevention choice for people at substantial risk of HIV infection as part of combination HIV prevention approaches.'

With more and more studies demonstrating the effectiveness of PrEP, some concerns have been raised over factors that might limit the benefits of PrEP in bringing down the epidemic. These factors include drug adherence issues, possibility of risk compensation, drug resistance, side-effects and cost effectiveness. AIDS Concern believes that an urgent and comprehensive look into these issues should be made to obtain the greatest benefit from the implementation of PrEP in Hong Kong.

Adherence issues

Results from the iPrEx study show that the level of protection offered by PrEP is strongly related to the level of adherence to the daily medication doses. 42% reduction in risk for HIV transmission was reported among participants who do not adhere well to the drug regimen; while 92% reduction in the risk for HIV transmission was reported in those with detectable levels of drug.

AIDS Concern believes that adherence issues will need to be addressed to ensure the success of PrEP as a HIV prevention strategy. In order to offset the potential

adherence issues associated with the use of PrEP, AIDS Concern believes that people taking PrEP should be given adequate information about the importance of drug adherence in one-on-one counselling services, which are underscored by numerous research findings as the cornerstone to the success of PrEP. According to the guidelines from Centres for Disease Control and Prevention (CDC) in the US, delivery of PrEP should be incorporated into a comprehensive package of HIV services, including regular clinical follow up to monitor users' drug adherence and HIV testing.

PrEP should also be promoted as an individual choice targeting at the people at high risk of contracting HIV as individuals would be most motivated to adhere strictly to the drug regimen of PrEP if they felt they need it.

Possibility of risk compensation

Some community members have expressed concern that the increasing uptake of PrEP may lead to an increase in high risk sexual behavior (condomless sex and increase of sexual partners) among MSM, which might endanger the sexual health of the community as a whole.

The PROUD study showed no evidence of risk compensation amongst the study participants. The sexual behavior and the number of condomless anal sex partners were found to remain unchanged throughout the study, whether or not participants are taking PrEP.

However, some studies show that the condom use rate of does decline for a minority of men taking PrEP. In a study in San Francisco (2015), among the 143 PrEP users, condom use stayed the same in 56% of the study participants, but decreased in 41% of the users.

AIDS Concern believes that appropriate *behavioral interventions* may counteract the possible risk compensation among those who take PrEP, and thus should always accompany PrEP use in its implementation. For MSM who have regular unsafe sex, PrEP can be an important way to stop new infections. However, all people using PrEP should be offered counselling services on safer sex practices, support services and regular HIV testing. People should also be strongly encouraged to utilize PrEP alongside other preventative tools including using condoms to prevent sexually-transmitted diseases (STDs).

More local demonstration projects should also be conducted to look into how risk-taking behaviors are influenced by personal and psychological factors, to inform future PrEP implementation efforts.

Possibility of drug resistance

If someone uses PrEP but does not take it consistently there is a risk that they develop drug resistance to HIV medication. This underlines the importance of taking the medication consistently.

In some cases high risk sexual behavior could combine with inconsistent use of PrEP, to expose PrEP users to more potential HIV infection and increase their possibility of developing HIV drug resistance.

Research by Professor Ume L. Abbas indicates that the rate and duration of inconsistent PrEP use in already infected individuals is the major determinant of HIV drug resistance prevalence arising from PrEP. Among the 9222 users who have taken on PrEP, only 11 people developed FTC or TDF-resistant HIV infection (n=0.1%), and it occurred mainly among people who were already acutely infected with HIV before initiating PrEP. In other words, if PrEP users do not adhere well to the drug regimen and engage in high risk behavior at the same time, unrecognized and acute HIV infection would expose them to the risk of developing drug resistance.

AIDS Concern acknowledges the need of research to look into the factors influencing the emergence and spread of HIV drug resistance in real life settings at population level, so as to build up more evidence for the design of behavioral interventions. Initial and regular HIV testing should be conducted to ensure that the PrEP users stay HIV-negative when using PrEP. Support services should also motivate the PrEP users to take the drug consistently by advising them the potential risks of inconsistent use.

Side-effects

Short-term effects such as headaches, weight loss, diarrhea, nausea and fatigue are common among PrEP users; while long-term side effects such as kidney dysfunction and decreased bone mineral density do affect a very small proportion of PrEP users.

In PrEP studies, use of tenofovir has been associated with small decreases in key measures of kidney function (creatinine clearance and glomerular filtration rate, GFR) and 0.4-1.5% loss in bone mineral density, affecting up to 2% of participants. Most of their renal function and bone mineral density was also found to have returned to the baseline level after withdrawing PrEP use.

AIDS Concern believes that it is important to take note of the small but possible health risks involved in taking PrEP, and therefore health-monitoring services should always accompany PrEP prescription.

Cost

AIDS Concern believes that making sure that HIV interventions make best use of resources is of vital importance. PrEP can only be cost effective for public health funding if it is properly targeted at those people at highest risk of HIV. We also think that consideration can be given as to how long the intervention needs to last. For example, we would not want to see large numbers of people on PrEP for many years. Consideration can be given to prescribing PrEP only to those at very high risk within particular age groups with a history of high risk behaviour for particular periods of time. Working out how to effectively target the use of PrEP in a cost effective way can be part of a local demonstration project.

Conclusion

AIDS Concern recognizes PrEP as an effective addition to the HIV prevention tools. If it is administered correctly with the inclusion of other HIV services and prevention methods, it could play an important part in reducing the risk of HIV transmission. We believe it is essential that an urgent and comprehensive look into these issues is made with local trials of PrEP to inform future implementation efforts.

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