



AIDS Concern position paper on the availability and eligibility of Post-exposure Prophylaxis (PEP)

Post exposure prophylaxis is the use of HIV medication to try to prevent someone developing HIV after they think they may have been exposed to it.

This is a public position statement setting out AIDS Concern's views about the availability and eligibility of Post-exposure Prophylaxis (PEP) in Hong Kong. It is formed after reviewing the views of the HIV high risk communities and international evidence. AIDS Concern aims to use this position statement to educate the community about PEP and advocate for better access to PEP.

Executive summary

- AIDS Concern recognizes PEP as an important secondary HIV prevention measure to lower the HIV infection rate in Hong Kong.
- The World Health Organization (WHO) affirms that prompt access to PEP should be offered in cases of substantial exposure that have the potential for HIV transmission on a non-discriminatory basis.
- AIDS Concern recognizes that there are serious barriers to the access to PEP for non-occupational exposure in Hong Kong and calls for the urgent action of the Hong Kong government to make sure the community understands PEP and to make sure guidelines on PEP are being implemented to prevent HIV infection.

Guidelines on PEP from the World Health Organization (WHO)

Post-Exposure Prophylaxis (PEP) is an anti-HIV medication that can reduce the infected person's chance of becoming HIV positive by 81% if it is taken within 72 hours of exposure. Although it was initially prescribed for occupational exposure to HIV (for example in healthcare settings with a needle stick injury), the provision of

PEP has been extended to non-occupational exposures, including consensual unprotected sexual exposure, injecting drug use, and exposure following sexual assault in different countries in the past two decades.

The World Health Organization (WHO) has affirmed PEP as an important secondary HIV prevention measure, and published a guideline in 2014 recommending PEP for exposures as following, regardless of whether the exposure is transmitted through occupational or non-occupational routes. .

The WHO recommends that individuals shall be eligible for PEP if:

- a) Parenteral or mucous membrane (for example in the vagina or anus) is significantly exposed to a potentially infectious body fluid
- b) Exposure has occurred within the past 72 hours

Although the WHO emphasizes that HIV testing services should be offered to the exposed person and source person, it stresses that the assessment of HIV status of the exposed person and source person should not be a barrier to initiating PEP. HIV testing to the exposed person should be voluntary, implemented with obtained consent, and ‘the initiation of PEP should not be delayed by the availability of the source HIV test results.’ ‘In some settings with high background HIV prevalence, all exposure may be considered for PEP without risk assessment.’ In other words, HIV testing for the exposed person and source person should be offered but should not be the prerequisite for providing PEP.

To conclude, the WHO regards PEP as an important HIV prevention measure to be integrated into the core HIV service package, and calls for adjustment of service delivery protocols to ensure *prompt* access to PEP to people who have experienced significant and potentially infectious exposure.

Availability of PEP in Hong Kong

In Hong Kong, any use of PEP for non-occupational exposure (nPEP) would be ‘exceptional and should be considered only in the event of high-risk exposure to a source known to be HIV positive’ within 72 hours of exposure, according to the guideline from the Centre for Health Protection. In other words, the potentially exposed individual might be able to gain access to PEP only if he/she reports having high risk exposure behavior with a source person whose HIV status is *known to be*

*positive.*¹

According to AIDS Concern's frontline experience, within hospitals confusion does occur in times of the administration of nPEP. The exposed persons are sometimes required to prove the HIV status of the source person within 72 hours of exposure, which is extremely difficult as the source person is often untraceable or unwilling to undergo the HIV testing. The regulation clearly poses serious barriers to prompt access of PEP for individuals who have experienced potentially substantial HIV exposure.

Recommendations on increasing the availability of PEP

As HIV infections have been rising rapidly in Hong Kong and AIDS Concern is receiving more and more calls from the public asking about the access to PEP, we think that PEP should be used more regularly as an additional option for HIV prevention outside occupational exposure. We ask the Department of Health and Hospital Authority to review the guidelines on PEP and implementation of the guidelines to *ensure prompt access to PEP for anyone who has experienced substantial and potentially infectious exposure*. With reference to the practice of other developed countries in the provision of PEP, we recommend the following adjustments in the current healthcare system to increase the availability of PEP.

1. Ensure a clear exposure risk assessment guideline for nPEP prescription is followed thoroughly by all public healthcare providers

Although knowing the HIV status of the source person is a helpful guidance for clinical action, we believe that it should not be a prerequisite for providing nPEP as it would significantly delay or even deny prompt access to PEP for those who have experienced substantial HIV exposure. Even if the exposed person is unable to determine the source person due to various barriers, he/she should still be able to get access to nPEP if substantial risk of HIV exposure has taken place.

To ensure prompt access to nPEP for anyone who may have experienced HIV exposure, public healthcare providers should be provided with a clear risk assessment guideline to guide their consideration and action when the HIV status

¹ As the use of PEP for non-occupational use is still an exceptional measure, doctors in different public hospitals would still determine the need for PEP prescription on a case by case basis.

of the source person is unknown. The guideline should also be followed **thoroughly** by all public healthcare providers to ensure consistency in the practice among different public hospitals.

We suggest that the government take the reference of the UK and Australia to review the risk assessment guideline to determine the need for nPEP when the HIV status of the source person is unknown. For instance, when the HIV status of the source person is unknown, the hospital authority in the UK would recommend PEP for receptive anal sex only, while nPEP is recommended for receptive/insertive anal sex and contaminated injecting drug use in Australia in this scenario. As the HIV prevalence of specific populations varies in different countries, different hospital authorities have different statistics on the transmission risk of different types of exposure, which is used as a guideline in determining the need for nPEP. (See Appendix I for the algorithm of risk assessment tool)

Thus, we strongly recommend that the government review the risk assessment guideline according to the latest HIV prevalence statistics of high risk populations in Hong Kong, to determine the need for nPEP when the HIV status of the source person is unknown, to reflect the need from the latest HIV epidemic.

Prompt access to nPEP can help prevent lifelong HIV infections for the high risk communities, and also save \$millions on anti-HIV medication costs for the government. According to a research in the UK, the cost of 28-day course of PEP accounts for approximately 0.24% of the lifetime cost of anti-HIV medication. In other words, the intervention would be cost-effective if only 1 in 400 people treated had HIV prevented. Research in the US also suggests that the use of PEP after non-occupational exposure is cost-effective provided that it is targeted to high-risk exposures.

Although there are concerns about undue reliance on nPEP if it is widely prescribed for non-occupational exposure, research in the UK has shown that increasing awareness and availability of nPEP does not lead to repeated utilization of PEP by individuals. The implementation of nPEP may even reduce the high risk behavior of users, as they would now realize the importance of safer sex to avoid the trouble of treatment and side effects.

2. Integrate PEP into the core HIV services package

In order to ensure the effectiveness of PEP and enhance the primary HIV prevention measures, we believe a HIV service package can include the following along with the prescription of PEP with reference to the experience of other countries:

- a) Explaining the benefits and risks of taking PEP, including side effects
- b) Baseline HIV testing to the exposed person to avoid drug resistance
- c) Hepatitis B and C testing
- d) Clinical follow-up to manage side-effects and monitor drug adherence
- e) Counselling on high risk behavior to prevent future HIV infection
- f) Post HIV testing at three and six months after exposure to determine the HIV status of the exposed individual

Apart from introducing core HIV services, PEP training should also be introduced into the curricula for relevant healthcare workers in both professional education and in-service training to raise their awareness of the availability and rationale of PEP, according to the WHO guideline.

Conclusion

In conclusion, AIDS Concern believes that PEP is an important addition to the HIV prevention measures. If targeted at the high risk episodic exposures and given promptly to those in need, PEP can effectively help to reduce the HIV infection rate. Therefore, we urge the government to review and update the guidelines on PEP for non-occupational exposure to increase its availability and provide a core HIV services package to ensure its effectiveness and to improve public communication about access to PEP.

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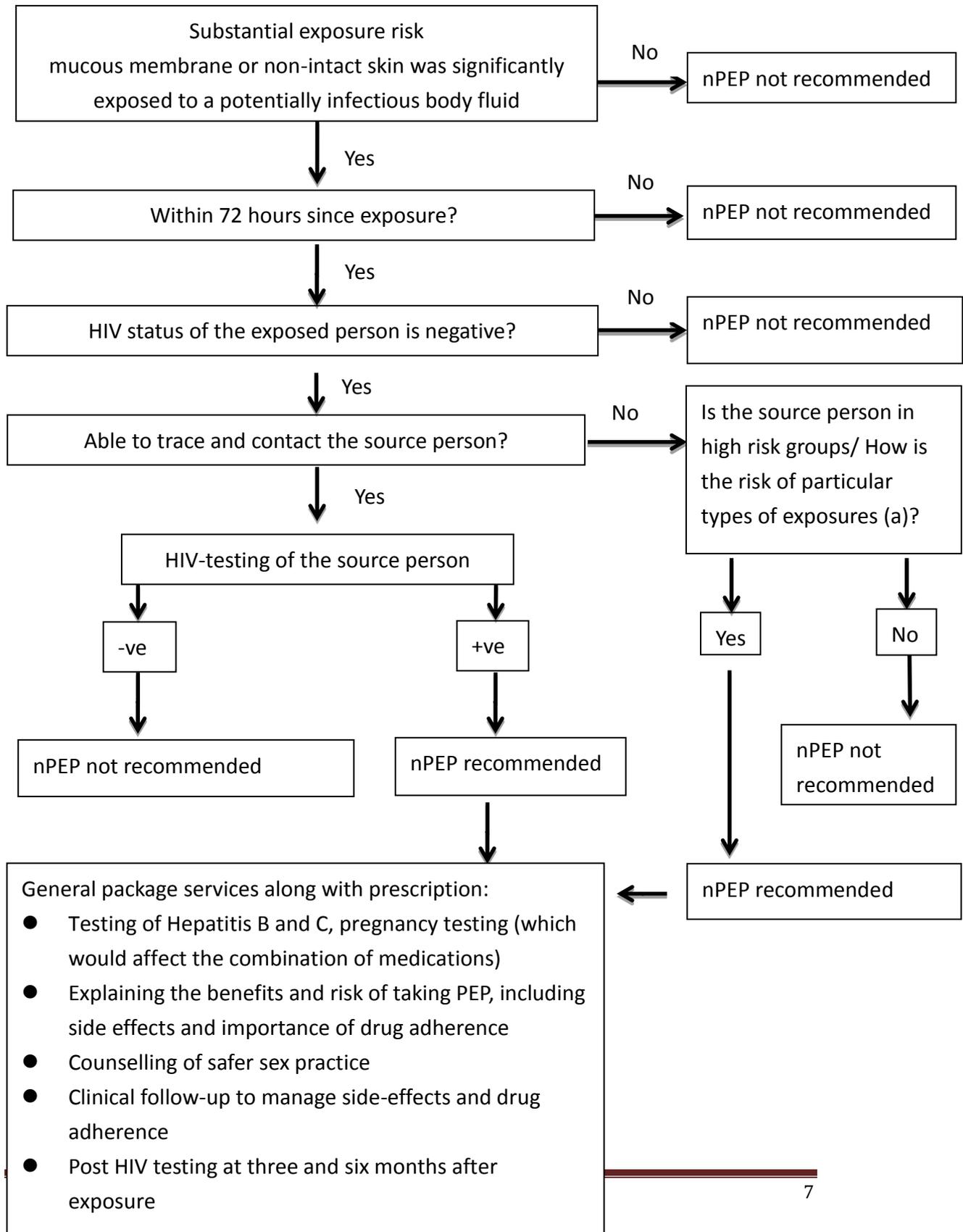
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Appendix I

Algorithm for risk assessment and non-occupational PEP (nPEP) prescription in Australia, the U.S., the UK, Singapore and Taiwan



(a) For the UK and Australia, the clinics or hospitals would determine the need for PEP by the assessing the risk of the particular types of exposure. For the US, Singapore and Taiwan, they would recommend PEP prescription if the source person comes from particular high risk groups.

Note: AIDS Concern has drawn the above algorithm to reflect the experiences of different countries for illustration and discussion purposes only.

i. Example from Britain

Table 3: Summary table of PEPSE prescribing recommendations

	Source HIV status			
	HIV positive		Unknown HIV status	
	HIV VL unknown / detectable (>200copies/ml)	HIV VL undetectable (<200copies/ml)	From high prevalence country / risk-group (e.g. MSM) *	From low prevalence country / group
Receptive anal sex	Recommend	Not recommended [§] <i>Provided source has confirmed HIV VL<200c/ml for >6 months</i>	Recommend	Not recommended
Insertive anal sex	Recommend	Not recommended	Consider [†]	Not recommended
Receptive vaginal sex	Recommend	Not recommended	Consider [†]	Not recommended
Insertive vaginal sex	Consider [§]	Not recommended	Consider [†]	Not recommended
Fellatio with ejaculation [†]	Not recommended	Not recommended	Not recommended	Not recommended
Fellatio without ejaculation [†]	Not recommended	Not recommended	Not recommended	Not recommended
Splash of semen into eye	Not recommended	Not recommended	Not recommended	Not recommended
Cunnilingus	Not recommended	Not recommended	Not recommended	Not recommended
Sharing of injecting equipment**	Recommended	Not recommended	Consider	Not recommended
Human bite [§]	Not recommended	Not recommended	Not recommended	Not recommended
Needlestick from a discarded needle in the community			Not recommended	Not recommended

Source: UK Guideline for the use of HIV Post-Exposure Prophylaxis Following Sexual Exposure (PEPSE) 2015

ii. Example from Australia

Table 4. PEP recommendations for exposure to an HIV positive source

Exposure to an HIV positive source	Estimated risk of transmission / exposure ^a	PEP Recommendation ^a	
		Viral load detectable	Viral load undetectable
Receptive anal intercourse	1/60 – 1/155	Recommended	Recommended ^b
Contaminated injecting equipment (IDU)	1/125	Recommended	Recommended ^b
Insertive anal intercourse (uncircumcised)	1/160	Recommended	Recommended ^b
Insertive anal intercourse (circumcised)	1/900	Recommended	Discuss ^{a,b}
Receptive vaginal intercourse	1/1250 ^c	Recommended	Not recommended ^a
Insertive vaginal intercourse	1/2500 ^c	Recommended	Not recommended ^a
Occupational needlestick and other sharps exposure	1/440	Recommended	Recommended ^b
Occupational mucous membrane exposure	1/1100	Recommended	Recommended ^b
Receptive oral intercourse with ejaculation or insertive oral intercourse	Not measurable	Not recommended ^d	Not recommended

Source: National guidelines for post exposure prophylaxis after occupational and non-occupational exposure to HIV by ASHM 2013

iii. High risk groups recommended for PEP in the US, Taiwan and Singapore when HIV status of the source person is unknown

Countries	MSM	Bisexual men	Injection drug users	Sex workers	Other groups
The US	✓	✓	✓	✓	N/A
Taiwan	✓	✓	✓	✓	Persons with STIs, persons with multi-sexual partners
Singapore	✓	✓	✓	✓	Victims of rape