



2014 ALERT #3

Emergency Post-Exposure Prophylaxis Can Prevent HIV Infection

Please Share this Alert with Colleagues in Emergency Medicine, Primary Care, HIV Care, Internal Medicine, Family Medicine, Pediatrics, Adolescent Medicine, and with Front-line Staff in Your Facility.

- Post-Exposure Prophylaxis (PEP) using antiretroviral medicines can prevent HIV infection if initiated within 36 hours of exposure and continued for 28 days.
- For patients with appropriate exposures, providers should immediately offer PEP or refer patients to experienced providers.
- Providers should inform HIV-negative at-risk patients to request emergency PEP if exposed and inform patients living with HIV that PEP can protect their partners.
- Every prescription of PEP is an opportunity to discuss Pre-Exposure Prophylaxis (PrEP): the use of a daily antiretroviral pill to provide ongoing protection against HIV.

January 12, 2015

Dear Providers,

More New Yorkers are seeking care after possible exposure to HIV. Recent analysis of Health Department data shows that the proportion of visits to NYC hospital emergency departments related to HIV exposure has increased three-fold in the past decade.¹ Exposure to HIV is a medical emergency, as infection can establish within 24 to 36 hours.^{2 3 4} Prompt initiation of Post-Exposure Prophylaxis (PEP) using antiretroviral medication can prevent the establishment of HIV infection. PEP has been prescribed for health care workers following occupational exposures to HIV since the late 1980s; an early case-control study demonstrated PEP's effectiveness.⁵ Today, the medications used for PEP are well-tolerated and more effective^{6,7}, and PEP is increasingly prescribed following sexual and other non-occupational exposures.

Awareness of PEP remains relatively low, even among groups with high incidence of HIV such as gay men and other men who have sex with men.⁸ The Health Department requests that providers know the basics of PEP, prescribe it in a timely manner, and inform their patients about this emergency HIV prevention method.

Guidelines for prescribing PEP

Following the revised 2013 New York State Clinical Guidelines for PEP

[\(http://www.hivguidelines.org/clinical-guidelines/post-exposure-prophylaxis/hiv-prophylaxis-following-non-occupational-exposure/\)](http://www.hivguidelines.org/clinical-guidelines/post-exposure-prophylaxis/hiv-prophylaxis-following-non-occupational-exposure/):

- **Initiation:** PEP should be initiated as soon as possible, ideally within two hours and no more than 36 hours after exposure. Providers may decide to initiate PEP more than 36 hours after exposure on a case-by-case basis, but the efficacy of PEP diminishes with delayed initiation. (*Same cites as 1, 2, 3*)
 - Clinics should triage patients who may require PEP as urgent cases. A best practice is to administer the first dose of PEP while conducting a baseline evaluation to establish (1) that the patient is not already HIV-infected and (2) has a high risk of recent exposure to HIV.
- **Appropriate exposures:** PEP is appropriate for HIV-negative persons following a recent and specific incident that involves a significant risk of exposure to HIV.
 - PEP may be warranted for patients who have had receptive or insertive anal or vaginal sex; either

without a condom or with a broken condom; with a partner who has HIV or is of unknown HIV status.

- In NYC, HIV prevalence and incidence is greatest among men who have sex with men⁹ and transgender women.¹⁰ As these groups have an elevated risk of exposure to HIV, they may be considered priority patients for PEP.
- PEP is also appropriate for persons exposed to HIV-infected blood while injecting drugs.
- Other potential exposures are discussed in the Guidelines.
- **Regimen:** The recommended three-drug PEP regimen for all types of exposure involves:

Tenofovir 300 mg PO daily + Emtricitabine 200 mg PO daily

Plus

Raltegravir 400 mg PO twice daily or Dolutegravir 50mg PO daily

- Many clinicians successfully use elvitegravir as an integrase inhibitor in place of raltegravir or dolutegravir; Stribild™ is a once-a-day, fixed-dose combination of elvitegravir, tenofovir and emtricitabine, with cobicistat as a pharmacokinetic enhancer. Special consideration should be given to drug interactions if Stribild is used for PEP.
- **Contraindications:** The only absolute contraindications to PEP are if the patient is allergic to one of the medications being prescribed or if the patient tests positive for HIV.
- **Patient counseling:** PEP's efficacy depends on maintaining sufficient drug levels throughout the 28-day course. Patients should be counseled on the importance of adherence at baseline and via patient-provider contact throughout the course of PEP.
 - Providers should also counsel patients to reduce their risk of transmitting HIV while taking PEP and during the remainder of the 12-week follow-up period, by using condoms during sex and by not breastfeeding or sharing injection equipment.
- **Follow-up HIV testing:** If PEP use is indicated, the patient should be tested for HIV at four weeks and 12 weeks post-exposure, whether or not the patient accepts or completes PEP.

For timely expert assistance with prescribing PEP, clinicians can call the national **PEPLine (888-HIV-4911)**, from 9 am to 2 am, seven days a week.

Access to PEP in NYC

In New York State, Medicaid and most private insurance cover PEP. For uninsured New Yorkers, the NYC Health Department supports nine clinical sites that provide PEP free of charge to men who have sex with men, transgender women and others with appropriate exposures. In addition, Health Department STD Clinics provide free three-day “starter packs” of PEP to eligible patients (<http://www.nyc.gov/html/doh/downloads/pdf/std/eligibility-table.pdf>). These clinics and other experienced PEP providers in NYC are listed at <http://www.nyc.gov/html/doh/html/living/prep-pep-resources.shtml>. Clinics that would like more information or wish to become part of the NYC PEP referral network can contact the Health Department at PrEPandPEP@health.nyc.gov.

PrEP, for ongoing protection

PEP patients and patients who acknowledge difficulties in maintaining consistent condom use or report repeated HIV-related risk behaviors should be counseled about Pre-Exposure Prophylaxis (PrEP). In PrEP, a daily antiretroviral pill, Truvada™, provides ongoing protection against HIV. PrEP clinical guidelines are available from New York State (<http://www.hivguidelines.org/clinical-guidelines/pre-exposure-prophylaxis/guidance-for-the-use-of-pre-exposure-prophylaxis-prep-to-prevent-hiv-transmission>) and the U.S. Centers for Disease Control and Prevention (<http://www.cdc.gov/hiv/pdf/guidelines/PrEPguidelines2014.pdf>). Additional guidance for NYC providers

is available at <http://www.nyc.gov/html/doh/html/living/prep-pep-provider.shtml>.

To realize the potential of PrEP and PEP to reduce HIV transmission, the Health Department has launched a campaign with information for both New Yorkers (<http://www.nyc.gov/html/doh/html/living/prep-pep.shtml>) and their medical providers (<http://www.nyc.gov/html/doh/html/living/prep-pep-provider.shtml>). Outreach to providers includes a public health “action kit” for PrEP and PEP (<http://www.nyc.gov/html/doh/html/hcp/csi-prep-pep.shtml>).

We greatly appreciate your assistance in helping prevent HIV infections in New York City,.

Sincerely,

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¹ Ngai S, Edelstein Z, Myers J, Weiss D. Tracking HIV post-exposure prophylaxis using syndromic surveillance in NYC emergency departments [Abstract]. International Society for Disease Surveillance Conference. December 10-11, 2014.

² Tsai CC, Follis KE, Sabo A et al. Prevention of SIV infection in macaques by (R)-9-(2-phosphonylmethoxypropyl)adenine. *Science*. 1995; Nov 17;270(5239):1197-9.

³ Otten RA, Smith DK, Adams DR et al. Efficacy of postexposure prophylaxis after intravaginal exposure of pig-tailed macaques to a human-derived retrovirus (human immunodeficiency virus type 2). *J Virol*. 2000; Oct;74(20):9771-5.

⁴ Wade NA, Birkhead GS, Warren BL et al. Abbreviated regimens of zidovudine prophylaxis and perinatal transmission of the human immunodeficiency virus. *New England J of Medicine*. 1998; Nov 12;339(20):1409-14.

⁵ Cardo DM, Culver DH, Ciesielski CA et al. A case-control study of HIV seroconversion in health care workers after percutaneous exposure. Centers for Disease Control and Prevention Needlestick Surveillance Group. *New England J of Medicine*. Nov 20 1997; 337(21):1485-1490.

⁶ Mayer KH, Mimiaga MJ, Gelman M, Grasso C. Raltegravir, tenofovir DF, and emtricitabine for postexposure prophylaxis to prevent the sexual transmission of HIV: safety, tolerability, and adherence. *J Acquir Immune Defic Syndr*. 2012; 59(4):354-359.

⁷ McAllister J, Read P, McNulty A, Tong WW, Ingersoll A, Carr A. Raltegravir-emtricitabine-tenofovir as HIV nonoccupational post-exposure prophylaxis in men who have sex with men: safety, tolerability and adherence. *HIV Medicine*. 2014; 15(1):13-22.

⁸ Mehta SA, Silvera R, Bernstein K, Holzman RS, Aberg JA, Daskalakis DC. Awareness of post-exposure HIV prophylaxis in high-risk men who have sex with men in New York City. *Sex Transm Infect*. Jun 2011; 87(4):344-348.

⁹ Pathela P, Braunstein SL, Schillinger JA, Shepard C, Sweeney M, Blank S. Men who have sex with men have a 140-fold higher risk for newly diagnosed HIV and syphilis compared with heterosexual men in New York City. *J Acquir Immune Defic Syndr*. 2011; 58:408-16.

¹⁰ Nuttbrock, L, Hwang S, Bocking W et al.. 2009. Lifetime risk factors for HIV/STI infections among male-to-female transgender persons. *J Acquir Immune Defic Syndr*. 2009; 52(3): 417-421.