

CDC Releases Updated Guidelines for Postexposure Prophylaxis After Sexual, Injection Drug, or Other Nonoccupational Exposures to HIV

Key Points for Practice

- Evaluate exposures promptly and initiate nPEP as soon as possible after exposure.
- Do not delay nPEP pending HIV test results or source person risk factor assessment.
- Prescribe three-drug nPEP regimens.
- Test for other sexually transmitted infections.
- Offer PrEP to those who continue to be at risk.

From the AFP Editors

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This series is coordinated by Sumi Sexton, MD, Associate Deputy Editor.

A collection of Practice Guidelines published in AFP is available at <http://www.aafp.org/afp/practguide>.

CME This clinical content conforms to AAFP criteria for continuing medical education (CME). See CME Quiz Questions on page 346.

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Postexposure prophylaxis (PEP) with anti-retroviral drugs to prevent transmission of human immunodeficiency virus (HIV) following sexual or injection drug use exposures (nonoccupational PEP or nPEP) is an essential intervention requiring a timely response. Updated guidelines from the Centers for Disease Control and Prevention (CDC) provide clinicians with guidance on assessing and managing exposures, new nPEP regimens, schedules for baseline and follow-up testing for HIV and associated infections, and longer-term prevention measures including preexposure prophylaxis (PrEP).

Indications for nPEP

Indications for nPEP remain unchanged. The patient must be exposed to a potentially infectious fluid, including semen, vaginal or rectal secretions, and blood or any body fluid contaminated with blood. Non-bloody saliva, urine, feces, vomitus, sputum, nasal secretions, sweat, and tears are not infectious for HIV. There should be knowledge or reasonable suspicion that the source person is infected with HIV. With sex partners and injection drug use, it might not be possible to obtain accurate information on the source person's HIV status. The patient needs to come into contact with a mucous membrane (e.g., vagina, rectum, mouth) for sexual

exposures or through the skin for injection drug exposures. And finally, exposure needs to have occurred within the previous 72 hours.

Baseline Testing

Exposed persons should have HIV testing, preferably using a rapid antibody or rapid antigen-antibody test, to rule out infection from a previous exposure. Exposed persons with HIV infection are not candidates for nPEP and need further evaluation for treatment. If HIV test results will not be available during the initial evaluation, a decision whether nPEP is indicated should be made without delay, based on the assumption that the exposed person is not infected with HIV. nPEP can be discontinued if the patient is later determined to have HIV infection.

Source person testing should also be obtained, if possible. A fourth-generation HIV antigen-antibody test is recommended because it can detect recent infection a few weeks earlier than standard antibody tests. If this test is negative, the source person is presumed to be uninfected, and nPEP is not indicated. If there are signs or symptoms of acute HIV infection, additional evaluation is required. For many exposures, the source person's HIV status will not be known, so risk will be estimated based on known or suspected risk factors.

The guideline provides schedules for baseline laboratory testing, including hepatitis B and C and sexually transmitted infections, for source and exposed persons initiating nPEP. Pregnancy testing is recommended when appropriate.

Initiating nPEP as Soon as Possible After Exposure

Postexposure prophylaxis is a time-sensitive intervention because effectiveness appears to

wane over time. Prompt evaluation and initiation of nPEP (when clinically indicated) as soon as possible after exposure are essential. Initiating nPEP should not be delayed pending HIV test results or additional source person risk factor assessment. nPEP is unlikely to be effective when initiated more than 72 hours after exposure. Therefore, the guidelines do not recommend nPEP after that timeframe.

Treatment

RECOMMENDED NPEP REGIMENS

Three-drug nPEP regimens are now standard treatment, based on the effectiveness of combination antiviral drug regimens in HIV disease. Most patients tolerate the current medication regimens without serious adverse effects or drug interactions.

The preferred regimen includes:

Tenofovir disoproxil, 300 mg/emtricitabine, 200 mg (Truvada) once daily

plus

Raltegravir (Isentress), 400 mg twice daily *or* dolutegravir (Tivicay), 50 mg daily

The alternative regimen is:

Tenofovir disoproxil, 300 mg/emtricitabine, 200 mg once daily

plus

Darunavir (Prezista), 800 mg *and* ritonavir (Norvir), 100 mg once daily

An important adverse effect of tenofovir nPEP regimens is renal toxicity among those with preexisting kidney disease. Baseline creatinine measurement is mandatory.

Raltegravir and dolutegravir need to be given two hours before or six hours after administration of sucralfate (Carafate) and products containing calcium, magnesium, aluminum, iron, zinc and other buffered products, although raltegravir (but not dolutegravir) can be administered with calcium carbonate-containing antacids.

DURATION

nPEP should be given for 28 days regardless of the severity of exposure.

Follow-up Testing

HIV antibody testing at four to six weeks and three months is recommended. Schedules for follow-up laboratory testing for HIV, hepatitis, sexually transmitted infections, and pregnancy are also provided.

Acute HIV

The signs and symptoms associated with acute (primary) HIV infection, most commonly fever and rash, are described. Acute HIV infection requires immediate referral to a physician experienced in treating patients with HIV infection.

Special Considerations

The guidelines address special considerations, such as: nPEP in pregnancy; approaches in sexual assault cases; prophylaxis for sexually transmitted infections and hepatitis; use of antiretroviral drugs in children; antiretroviral use in renal and hepatic disease; drug resistance; repeated use of nPEP; safer sex and injection drug use practices; adherence, behavioral change, prevention counseling, and risk reduction; legal, regulatory, and reporting concerns; and financial assistance for nPEP medications.

PrEP

Many persons who are evaluated for nPEP following sexual and injection drug use exposures have ongoing risk factors and remain at markedly increased risk for future HIV infection. These persons, and persons who have received nPEP in the past year, should be provided risk reduction counseling and intervention services, including consideration of preexposure prophylaxis with tenofovir disoproxil/emtricitabine. When used regularly with good adherence, PrEP can decrease transmissions substantially. HIV infection must be ruled out before initiating PrEP.

Found-Needle Injuries

No HIV infections caused by injuries from needles discarded in public settings (e.g., parks) have been documented. These injuries typically involve small-bore needles that have been exposed to drying and contain only limited amounts of blood with viruses of low infectiousness.

Consultation

For challenging cases or when the guidelines do not provide the guidance needed on indications and implementation of PEP and PrEP, local experts, the national PEpline (888-448-4911), or the national PrEPline (855-448-7737) may be consulted.

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