# HIV Prophylaxis Alone May Not Work for Patients

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SAN FRANCISCO — A feasibility study among 891 individuals in San Francisco has identified some of the issues that must be considered in offering nonoccupational postexposure prophylaxis, Michelle Rowland, M.D., said at a meeting on HIV management sponsored by the University of California, San Francisco.

Postexposure prophylaxis (PEP) has been shown to reduce the risk of HIV transmission by 81% in health care workers, but no information is available about the efficacy of prophylaxis after nonoccupational HIV exposure. A placebo-controlled study would be difficult to conduct because of ethical considerations.

Of the 891 people in the study, all of whom were given PEP within 72 hours after exposure, 700 could be evaluated 12 weeks after PEP was initiated, and 7 individuals (1%) seroconverted, said Dr. Rowland of UCSF. All seven reported having unprotected receptive anal intercourse, four of them with a partner known to be infected with HIV. In contrast, only 50% of the nonseroconverters presented after receptive anal intercourse, a significantly lower percentage.

Individuals in the study reported one or more episodes of unprotected receptive or insertive anal or vaginal intercourse, receptive oral sex with ejaculation, or shared injection drug equipment. The potential sources of infection had to be known HIV-infected persons, men who have sex with men of unknown HIV status, a past or present injection drug user, a commercial sex worker, or an anonymous contact.

Previous studies have yielded estimates that the risk of infection from a single encounter is 0.8%-5.0% for receptive anal intercourse and substantially lower for other types of exposure. The investigators therefore queried the seroconverters about additional risk behavior. Six of the seven reported other high-risk encounters in the 6 months before PEP, and three of the seven reported ongoing high-risk behavior even after starting PEP, suggesting that the failure of PEP in these patients may not have been entirely due to medication failure.

**Six of the seven patients who seroconverted reported other high-risk encounters in the 6 months before postexposure prophylaxis.**

"PEP is not just medication," Dr. Rowland said. "It's also adherence counseling, risk-reduction counseling, and referral, because the whole point of this is to help people stay HIV negative. The per-contact transmission rate is virtually almost nothing. So people are not at risk for HIV just at that particular moment; they're particularly at risk for the rest of their lives."

There's a tendency to want to divide people presenting for PEP into three groups: those who should be advised to use PEP, those who should be offered PEP, and those who should not be offered PEP. In practice, she said, "The bottom line for me is that it's my job to help that individual person make an individual risk-benefit assessment."

Animal studies and experience with health care workers suggest it's important to begin antiretroviral therapy at most 72 hours after exposure. But many people who are exposed misinterpret that as meaning that they can wait 72 hours before deciding on PEP. "The message we're trying to get across is, 'You want to start this as soon as possible, and we're not going to initiate it after 72 hours,' " she said.

Investigators generally agree that the antiretroviral component of PEP should be continued for 28 days, but there's a great deal of controversy about what antiretrovirals to use and whether two nucleosides are enough or whether a three-drug regimen is better. The practice at UCSF is to use two drugs, but Dr. Rowland would consider using three in certain circumstances. For example, a three-drug regimen might be indicated if a patient reports multiple exposures over 5 days, including several within the required 72-hour period.

She recommended that clinicians be aggressive in getting information about the source of the exposure, to determine whether that person is truly HIV positive, and to conduct viral resistance testing. This is critical in choosing which antiretrovirals to use. ■