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AIDS ALERT

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Substance abuse treatment should be key component of HIV treatment plan

Experts explain some best-practice strategies

Treating HIV patients who have substance use or abuse problems is far from new and has been a part of HIV treatment for the past two decades. However, research is making it increasingly clear that continued alcohol and drug use can negatively affect treatment outcomes in some cases. This in turn means that clinicians and HIV specialists need to assess HIV patients for drug and alcohol use adequately and then adjust treatment plans accordingly.

"There has been a dramatic increase in the number of substance abusers with HIV over the past decade," says **Bruce Agins**, MD, MPH, medical director of the AIDS Institute of the New York State Department of Health in New York City.

"But it's not a new phenomenon, and the New York State Health Department had the foresight to develop programs to provide care to substance abusers with HIV early on," Agins says.

The issue of treating HIV patients who are chronic drug or alcohol users has become more complex in recent years, with some literature pointing to adherence problems and even medical problems related to the combination of antiretroviral therapy and alcohol or drug use. **(See Q&A story about Miami studies on HIV patients and substance use, p. 88.)**

"As HIV therapies are becoming more effective than ever and more complex than ever, it's becoming more important than ever that clinicians don't try to sweep the issue of their patients' drug use under the rug," says **Marc Gourevitch**, MD, an

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Heavy alcohol use has negative impact on HIV therapy

Two University of Miami researchers discuss their recent findings that HIV-infected drug users have worse treatment outcomes when they also are heavy alcohol users. They explain their findings and suggest some ways that clinicians can better deal with HIV patients who continue to abuse alcohol. Their study results were presented in April 2001 at the annual meeting of the American Society of Addiction Medicine in Los Angeles. 88

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■ **Watching STD trends:** Recent reports about new HIV infection rates suggest clinicians and public health officials could learn more about the disease's spread by focusing on other STDs

■ **As easy as punching buttons:** A Disease Management Assistance System gives verbal messages to patients and tracks their medication adherence

■ **International leaders call for action:** Epidemic still out of control in too much of the world

■ **Here's the latest in drug resistance:** The problem is increasing, so what's being done?

internist and director of Addiction Medicine at the Albert Einstein College of Medicine and Montefiore Medical Center in the Bronx, NY.

Compounding the problem is the fact that providers sometimes are unaware that substance abuse is having an impact on a particular patient's treatment and adherence, notes **Joseph Masci**, MD, director of AIDS Services at Queens Health Network and chief of Infectious Diseases at Elmhurst (NY) Hospital Center.

"The best we can do as a primary care provider is to establish as close of a relationship as possible so that the person feels safe in discussing substance abuse issues with us," Masci says. "Then we have a basis for establishing a management plan for them."

Treating substance users is controversial

HIV treatment for patients who are substance users is a controversial topic, especially in light of conflicting studies about adherence among these populations.

Some studies show that substance abusers are just as adherent to their medication as those who are in recovery, says **Mary Jane Rotheram-Borus**, PhD, professor and associate director of the AIDS Institute at the University of California - Los Angeles.

"In general, adherence is sporadic with people, and substance abusers are no different," Rotheram-Borus says.

The controversy extends even to the terminology to describe these patients. Some AIDS service organizations abstain from using the term "substance abuse" because it has a negative connotation. They prefer to refer to such activity as "substance use."

Also, at some major clinics, it's stipulated that HIV treatment is not withheld when patients continue to use or abuse drugs or alcohol, regardless of adherence problems that might arise.

Treatment must be individualized because studies have shown that some drug users do benefit markedly from antiretroviral therapy despite ongoing drug use, Gourevitch says.

"So you cannot simply apply one standard to all people who have been identified somewhere along the way as drug users," Gourevitch adds.

Many clinicians consider that it would be problematic from a public-health perspective to prescribe an antiretroviral regimen to a patient whose drug or alcohol use suggests that he or she might have major adherence problems.

"In general, the substance abuse is a bigger issue and a more urgent issue to take care of then these patients' HIV," says **R. Scott Hitt**, MD, president of the American Academy of HIV Medicine in Los Angeles. "The idea is to get their lives stabilized in terms of drug or alcohol addiction prior to initiating therapy, if one can."

Exceptions would have to be made in the cases of patients who have very low CD4 cell counts and who have an opportunistic infection, Hitt says.

"With all patients, as compliance is becoming a large problem, if counseling or changing the regimen does not improve compliance greatly, then I would stop their medications until their life situation shows they can be more compliant on their medications," Hitt adds. "Not only are they hurting themselves, but if they develop drug resistance, then there is a potential harm to society."

Look at drug use on case-by-case basis

The San Francisco AIDS Foundation in California addresses substance use on a case-by-case basis, looking more at other markers of whether a particular client is ready for antiretroviral treatment, says **Susan Haikalis**, LCSW, director of HIV Services and Treatment Support.

"There are some clients whose substance use is in a controlled way that doesn't interfere with their taking their medications on a regular basis," Haikalis explains. "We have seen patients with a current history of using speed or crack who are less able to manage the kind of adherence you need to be successful in treatment, but others in methadone or some heroin users who use on some form of regular schedule seem to be able to adhere to HIV medication regimens."

Also, not everyone who uses necessarily abuses, and it's important for providers to refrain from judgments and make patients feel comfortable enough to share information about their substance use, says **Sheila H. Mabry**, CSW, assistant director of HIV Prevention for the Gay Men's Health Crisis in New York City.

"I have heard that some clients are not comfortable talking about both sexuality and substance use in some clinics because they feel they are being judged, and there is an expectation from some providers that clients should stop before someone will work with them," Mabry adds.

The Lower Eastside Harm Reduction Center in New York did a study on accessibility and acceptability of health care for substance users and found that drug users have learned that it's not safe to be honest about their substance use, says **Mark Gerse**, deputy executive director for the program, which is serves people who are actively using substances.

"They know they will be treated better if they don't talk about their substance use," Gerse says. "If someone mentions using substances or being a heavy, regular drinker, then the focus right away gets put on the substances."

Another problem that appears to be increasing among the HIV population is an increase in medical and social complexity. Patients increasingly have mental health problems, and in San Francisco there also is an increase in homelessness among HIV-infected individuals, Haikalis says.

It's become quite common for the San Francisco AIDS Foundation to see clients who have multiple diagnoses, in addition to substance abuse, and this makes it difficult to assess and find available referral sources to handle these complex problems, Haikalis adds. **(See story on assessing and treating HIV patients who are substance abusers, below.)**

"They commonly have had very little work histories, and until they become disabled by HIV or AIDS, they are often stuck at the level of being only eligible for general assistance, which complicates access to care in most parts of the country," Haikalis says. "What we don't have sufficient services for is the substance use treatment area and particularly inpatient care." ■

Assess, refer, and treat: Keys for substance abusers

Trouble is that it's not that easy

HIV and substance abuse experts acknowledge that dealing with patients who have both of these issues can be challenging and often frustrating, but they say it's possible to provide the best treatment to these patients if certain steps are taken.

Here are some strategies for identifying and treating HIV patients who have substance use problems:

1. Assess HIV patients for alcohol and drug use.

The two most important factors in identifying HIV patients with substance use problems are for the patient to have a trusting relationship with the clinician and for the clinic or physician to use a written assessment form that could detect hidden substance addiction and abuse, according to HIV and substance abuse experts from clinics across the country.

The Whitman-Walker Clinic in Washington, DC, uses two very helpful tools, including the Barriers to Medication Adherence checklist and the Addiction Severity Index (ASI), says **Anne Clements**, LCSW, director of mental health, addiction, and day treatment services for the clinic, which serves HIV-infected clients in the D.C. area. **(See Barriers to Medication Adherence chart, inserted in this issue.)**

"The ASI assesses not only a person's pattern of use, but it also examines other mental health issues and gives a good assessment of how close they are to doing self-harm," Clements says. "And because addiction has such an impact on a person's physical health when someone is HIV-positive and because of all of the destructive things that happen, both behaviorally and physiologically, the best thing is for a trained and certified addiction counselor to do the assessment because addicts lie."

Avoid stigmas or penalties

When it's not feasible to use written assessment tools, physicians should have an honest dialogue with their patients, emphasizing that the patient will not be stigmatized or penalized for being honest about what he or she is doing, says **Mark Gerse**, deputy executive director of the Lower Eastside Harm Reduction Center in New York.

"That requires a change in the provider," Gerse says. "The patient should be on the same page as the physician, and the physician has to trust the patient and the patient has to trust the doctor, and if that doesn't exist it's a huge problem."

Clinicians should acknowledge patients' substance abuse in a nonjudgmental way, while also assessing the patient's view of his or her drug use and the patient's motivation to address their use, says **Marc Gourevitch**, MD, an internist and director of Addiction Medicine for the Albert Einstein College of Medicine and Montefiore Medical Center in the Bronx, NY.

2. Look for mental health issues in the same population.

Because so many people who have both substance abuse problems and HIV infection also have mental health problems, including depression, it's also important for physicians to screen for mental health problems, says **Jennifer Havens**, MD, director of Pediatric Services at the New York Presbyterian Hospital in New York. Havens is a psychiatrist who used to run a clinic for women and children affected by AIDS.

It's not good enough to ask patients if they have a history of mental health treatment, because many people with mental health problems and HIV infection have never received treatment, Havens notes.

"I believe providers should use screeners that are structured to pick up major psychiatric disorders, and once they screen positively, then they should have on-site services where psychiatrists or social workers can assess the patient and provide treatment," Havens adds.

3. Make referrals to treatment programs.

HIV providers and patients both benefit when a clinic has its own programs to address substance abuse and mental illness. For example, the Whitman-Walker Clinic has several different programs, including everything from day treatment to residential, to help HIV-infected addicts and alcoholics, Clements says.

The state of New York has created the framework for integrated services between HIV providers and substance abuse treatment centers so that there is a an easy referring relationship between the two groups, says Bruce Agins, MD, MPH, medical director of the AIDS Institute of the New York State Department of Health in New York City.

Clinicians need to be able to both assess and refer HIV patients with substance abuse issues when indicated, Agins adds.

"The coordination between the medical provider and the substance abuse provider is absolutely essential," Agins says. "It's very important to share information back and forth and work together to support the patient to adhere to the plan."

There are a variety of drug treatment modalities, including harm reduction, methadone treatment, and abstinence-based therapies, so the most important factor is to find the right approach that works for a particular individual, Agins says.

Deciding what type of referral to make will depend on how well the doctor knows the patient, Havens says.

"You need to establish a rapport with the person so they will be honest with you about what's going on, and then you need to figure out what their goals are," Havens says. "If they say, 'I'm not going to stop using drugs,' then don't send them to an abstinence-based program."

The harm reduction approach may work better for these individuals because its philosophy is, "How can we help you reduce substance abuse to the point where you are ready to take antiretrovirals?" Havens adds.

The Gay Men's Health Crisis in New York City offers harm reduction services to HIV patients, and one philosophy of such programs is to base substance use treatment on the client's own goals, says **Sheila H. Mabry**, CSW, assistant director of HIV Prevention.

"We meet clients where they are at," Mabry says. "Some clients are ready to stop or reduce substance use, and other times there's a process of exploration in which they can't be judged about their use."

Of course, these approaches all are based on the philosophy that should an HIV patient need and desire substance abuse treatment, it will be available. Unfortunately, that's not always possible. Even in New York City, where the two provider groups work well together, there still is a problem with availability because there are not enough substance abuse programs, says **Joseph Masci**, MD, director of AIDS Services at Queens Health Network and chief of Infectious Diseases at Elmhurst (NY) Hospital Center.

"We need more programs and more openings in them," Masci says.

Treatment programs are in even shorter supply in many other parts of the country. Havens notes that in some states, such as North Carolina, there are no substance abuse services or mental health services designed to serve HIV-infected people. In those areas, clinicians will have to improvise, making referrals to general substance abuse treatment programs and counselors.

HIV-infected substance users also may need to be referred to organizations that could help them improve other parts of their lives, such as finding adequate housing. This is particularly an issue in expensive cities, such as San Francisco, says **Susan Haikalis**, LCSW, director of HIV Services and Treatment Support for the San Francisco AIDS Foundation.

HIV-infected people might have disability income that amounts to $700 a month, while the average rent for a one-bedroom apartment is $1,400. Government funding can run out very quickly while picking up more than $1,000 a month in subsidized rent per person, Haikalis says.

4. Take substance use into consideration when designing a treatment strategy.

While some clinicians may choose to delay antiretroviral therapy until a patient is in treatment for substance abuse, others argue that various adherence strategies will work as well with this population as with other HIV patients.

"I think common sense would tell you to defer treatment at least until the patient is leading the kind of structured life that lends itself to taking medications on these structured regimens," Masci says.

Also, there might be a danger of interaction between antiretroviral drugs and alcohol or illegal drugs. These types of interactions have not been studied well enough, experts say.

No matter what, substance use continues

However, it is impractical to withhold treatment based solely on substance use, Gerse says.

"In New York City, over half of the people infected are injection drug users, so we'd be talking about not treating half of the HIV-positive people in our city, because no matter how hard we try or how tough they make the laws, substance use continues," Gerse says.

The San Francisco AIDS Foundation carefully monitors HIV-infected patients with potential adherence issues by providing them with a drop-in pharmacy service where they can pick up their medications and take them while being observed by staff, Haikalis says.

This type of service is limited because it's only open on weekdays during normal business hours, she adds.

Other adherence solutions might work with patients who are actively abusing drugs or alcohol, so clinicians who do not wish to withhold treatment to active users might be able to find other ways to ensure their medication adherence.

For example, clinicians could offer patients a placebo practice run in which the patient takes a fake tablet or vitamin on an antiretroviral schedule regimen to see how adherent he or she would be to the treatment, suggests **Mary Jane Rotheram-Borus**, PhD, professor and associate director of the AIDS Institute of the University of California - Los Angeles.

"If the patient is not adherent, then it might

influence the patient's and doctor's decision about whether to place the patient on antiretrovirals," Rotheram-Borus says.

Another way to improve adherence among this population is to offer access to other services that may help patients deal with socioeconomic issues, Gerse says.

"People are struggling with a lot of pain that has not been dealt with, and HIV only compounds it," Gerse says. "So now the hopelessness is even greater, and it's important to develop best practices that embrace substance users rather than leaving practices the way they are." ■

Special Report: Two Decades of AIDS

Young blacks' HIV risk reaches African proportions

Six-city study shows potential for disaster

(Editor's note: The Centers for Disease Control and Prevention in Atlanta released a special issue on the AIDS epidemic in a June MMWR*, reminding the public that AIDS was first reported in the* MMWR *on June 5, 1981, and highlighting new research on the alarmingly high incidence of HIV among young gay and bisexual men of six key cities. The impact of the CDC's findings and some additional information about current prevention plans will highlighted in this two-part special report. Look for stories summarizing the epidemic's toll around the world and the CDC's five-year prevention plan in the August issue of* AIDS Alert.*)*

Two decades into the AIDS epidemic, the disease continues to plague the gay and bisexual community, especially men of color.

The Centers for Disease Control and Prevention in Atlanta published in June a study of six large cities showing that young gay and bisexual men who are also African-American have an HIV-infection rate that is comparable to some of the hardest-hit regions of sub-Saharan Africa. The data, which still are being analyzed, indicate that HIV prevalence among black men ages 23-29 who have sex with men (MSM) was 14.7%. That prevalence rate means that nearly one in six black gay and bisexual men who were uninfected at the beginning of the year in those six cities would become infected by the year's end. Among white MSM, the incidence rate was 2.5%, and among Hispanic MSM, the rate was 3.5%. The overall 4.4% incidence rate for this age group of MSM is comparable to incidence studies of prevalence during the mid-1980s, when the gay community was hardest hit by the epidemic.[1]

Among gay and bisexual men ages 15-22 in seven large U.S. cities, the HIV incidence rate per year was 2.6%. Among black men of this age group, the incidence rate was 4%, and among white men it was 2.4%.1 **(See HIV prevalence chart, p. 87.)**

"The 14.7% incidence rate of black gay and bisexual men is extremely high and is comparable to incidence rates we now see in South Africa," says **Linda Valleroy**, MD, MPH, a CDC epidemiologist and the author of the most recent study. Valleroy, along with **Helene D. Gayle**, MD, MPH, director of the CDC's National Center for HIV, STD, and TB Prevention, and **Phill Wilson**, executive director of the African-American AIDS Policy & Training Institute of Los Angeles, spoke about the study at a recent teleconference.

The new study included data from a sampling of young gay and bisexual men in Baltimore, Dallas, Los Angeles, Miami, New York City, and Seattle. A seventh city, San Francisco, was part of the project, but was excluded as part of the study's second phase, which details the incidence of HIV among MSM ages 23-29.

"These new statistics absolutely remind us that the epidemic is not over, and it's important to resist any impression that it might be over," Wilson says. "Too many of us are still getting infected, getting sick, and are dying, and too few of us are getting tested or seeking treatment."

In response to these findings and to earlier reports that the epidemic is disproportionately affecting the African-American community and men who have sex with men, the CDC has issued public health bulletins to local health departments to put people on alert about rising trends of sexually transmitted diseases (STDs) and HIV among MSM, Gayle says.

The epidemic has had a far greater impact on the United States and the world than what could have been predicted a decade ago, with nearly 450,000 Americans dead of the disease and 22 million dead worldwide. In addition, the overall infection rate is estimated to be 40,000, which has been level for a number of years, Gayle says.

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TABLE 1. HIV prevalence* and incidence† among men aged 15–22 years who have sex with men — seven cities§, United States, 1994–1998

Characteristic	No.¶	HIV prevalence (%)	No. with recent HIV infection	HIV incidence (% per year)	(95% CI**)
Age group (yrs)					
15–19	1542	(5.6)	8	1.6	(0.5– 3.7)
20–22	1906	(8.6)	21	3.5	(1.8– 6.3)
Race/Ethnicity					
American Indian/ Alaska Native	45	(6.7)	0	0.0	(0.0–34.7)
Asian/Pacific Islander	203	(3.0)	0	0.0	(0.0– 6.6)
Black	587	(14.1)	7	4.0	(1.3– 9.9)
Hispanic	1027	(6.9)	6	1.8	(0.5– 4.8)
Mixed	335	(13.4)	6	5.4	(1.5–14.8)
White	1246	(3.3)	10	2.4	(1.0– 5.3)
City					
Baltimore	352	(8.5)	1	0.8	(0.0– 6.0)
Dallas	523	(6.5)	5	3.3	(0.9– 8.9)
Los Angeles	506	(8.3)	4	2.9	(0.7– 8.4)
Miami	484	(5.8)	1	0.7	(0.0– 4.5)
New York	530	(12.1)	14	7.6	(3.3–15.8)
San Francisco	690	(6.2)	3	1.2	(0.2– 4.5)
Seattle	364	(2.2)	1	0.7	(0.0– 5.3)
Sexual identity††					
Homosexual	2240	(7.5)	19	2.6	(1.3– 4.8)
Bisexual	1025	(6.5)	7	2.2	(0.7– 5.4)
Heterosexual	132	(3.8)	2	4.0	(0.3–19.1)
Transgender	42	(14.3)	1	7.1	(0.1–52.9)
Sex partners during preceding 6 months					
Men	2522	(7.8)	19	2.4	(1.2– 4.3)
Men and women	589	(6.6)	8	4.3	(1.5–10.1)
Women	111	(1.8)	0	0.0	(0.0– 9.8)
None	227	(5.3)	2	2.4	(0.2–11.3)
No. male partners during preceding 6 months					
≥5	791	(9.7)	10	4.0	(1.5– 8.8)
1–4	2320	(6.8)	17	2.3	(1.1– 4.3)
None	338	(4.1)	2	1.6	(0.1– 7.5)
Reported risk behaviors during preceding 6 months					
Unprotected anal sex with men	1408	(8.5)	17	3.8	(1.8– 7.2)
Sex while "high" on alcohol/drugs	1756	(7.6)	17	3.0	(1.4– 5.7)
Injected drugs	120	(19.2)	2	6.0	(0.5–26.4)
Total	**3449**	**(7.2)**	**29**	**2.6**	**(1.5– 4.4)**

* Enzyme immunoassay could not be conducted on 43 blood specimens because of insufficient volumes.
† Of the 249 HIV-positive specimens, 224 had quantity sufficient for a serologic testing algorithm for determining recent HIV seroconversion.
§ Baltimore, Maryland; Dallas, Texas; Los Angeles, California; Miami, Florida; New York, New York; San Francisco, California; and Seattle, Washington.
¶ Numbers may not add to total because, for some characteristics, a possible response category was "don't know" or "refuse." For "reported risk behaviors," only the subsamples with these risk behaviors are shown.
** Confidence interval.
†† Participants were asked whether they considered their sexual identity to be straight (heterosexual), bisexual/gay (homosexual), or transgender.

Source: Centers for Disease Control and Prevention, Atlanta.

However, within the overall level infection rate is the disturbing statistic that young African-American MSM have five times the HIV incidence rate of young white MSM and four times the rate of young Latino MSM, Valleroy notes.

The study shows that it's important to send prevention messages to black gay and bisexual men while they are adolescents and through their early 20s, Valleroy says.

This may be a difficult population to reach because black homosexual men are stigmatized twice in this country, first for being black and secondly for their sexual orientation, Wilson says.

"If you are gay and black and under age 30 in New York City, you are more likely to be HIV-positive than people in the hardest-hit areas of Africa," Wilson says. "Some of us are shamed into silence so we stay in marriages, putting our wives and children, as well as male partners, at risk."

The CDC has mounted a response to the continuing high rate of infection by developing a new plan to reduce by half the number of new infections within the next five years, Gayle says.

"At least 300,000 people are infected and don't know that, so the real focus is on making sure people are aware of the services available, targeting HIV services to HIV-positive individuals, and providing linkages to care and services," she says. Gayle adds that the CDC also will continue to target prevention programs and funding to the communities at greatest risk of infection.

Reference

1. HIV incidence among young men who have sex with men — seven U.S. cities, 1994-2000. *MMWR* 2001; 50:440-444. ■

Heavy alcohol use hinders HIV therapy: Study

Researchers discuss findings and meaning

(Editor's note: ***Gail Shor-Posner****, PhD, professor of psychiatry and behavioral sciences, and* ***Maria Jose Miguez****, MD, PhD, assistant professor of psychiatry, both at the University of Miami School of Medicine, discuss their recent findings that HIV-infected drug users have worse treatment outcomes when they also are heavy alcohol users. Their study results were presented in an abstract at the annual meeting of the American Society of Addiction Medicine held in April 2001 in Los Angeles.* AIDS Alert *asked the investigators to explain their findings and to suggest some ways that clinicians can better deal with HIV patients when they continue to abuse alcohol.)*

AIDS Alert: Why did you decide to do this particular study?

Shor-Posner: Our interest in alcohol use and HIV infection evolved from inspection of our current database showing widespread use of alcohol in HIV-1-infected chronic drug users. We were concerned about this finding, since alcohol use may contribute to impairment of immune function and affect neurocognition.

AIDS Alert: Tell us some details about the study.

Shor-Posner: It was funded by the National Institute of Drug Addiction in 1997 and was completed this year. Approximately 259 HIV-infected men and women were enrolled in a double-blind nutrition chemoprevention study. The participants have been followed longitudinally, and measurements of alcohol intake, drug use, disease progression, and cognitive function were determined every six months.

The data we are presenting here, for 220 subjects, were obtained at baseline, prior to intervention. For the analyses, our physicians reviewed the medical charts and confirmed that all the study participants were administered HIV-related treatments or had not received any antiretroviral medications for at least six months.

AIDS Alert: What were your most striking findings?

Miguez: The first important finding was that alcohol use was widespread. This is of particular interest, since there are conflicting reports regarding HIV and alcohol use in the literature.

In one study by Ruchkina and colleagues, HIV-infected individuals were reported to increase their use of alcohol after being diagnosed with HIV.[1] Another study, by Lefevre et al., however, described a reduction in alcohol use after infection with HIV.[2]

Shor-Posner: There is direct controversy in the literature regarding the prevalence of alcohol use, as well as the impact of alcohol on HIV replication and disease progression.

Miguez: We found that alcohol use is quite frequent among HIV-infected individuals. In fact, this seems to be daily use of alcohol, much more

than social drinking. Some patients report drinking between three and four glasses of alcohol per day.

Shor-Posner: These HIV-1 infected participants are chronic drug users as well, which further complicates treatment.

Miguez: But despite drug abuse, most of the patients have reported that they were infected through sexual transmission.

AIDS Alert: Could you tell us about your findings regarding the effect of alcohol use on CD4 cell counts?

Miguez: This is one of the main findings, and is also an area of controversy. In contrast with previous investigations that have failed to demonstrate a relationship between CD4 cell counts and alcohol intake, we found that heavy alcohol users had significantly lower CD4 cell counts than drug users who were non-drinkers. Furthermore, our results indicate that heavy alcohol users who received antiretroviral therapy were two times less likely to achieve the goal of having CD4 cell counts above 500, as compared to light users or nondrinkers administered antiretrovirals.

Another area of controversy, which is very important for HIV-infected individuals, involves reports suggesting that alcohol use may increase replication of the HIV virus. Our findings demonstrated that heavy alcohol users have higher viral load levels than the burden levels of nondrinkers. Moreover, when we reviewed alcohol use in relationship to HAART [highly active antiretroviral therapy] and undetectable viral loads, we found that heavy alcohol users receiving HAART were four times less likely to have undetectable viral load levels than those who did not abuse alcohol.

AIDS Alert: Do you think HIV clinicians should more carefully screen patients for substance abuse given these findings, and what should they do if they find evidence of alcoholism or illicit drug use?

Shor-Posner: I think our data clearly indicate the importance of careful screening for social drinking, heavy drinking, and drug use in HIV-infected patients.

Miguez: Clinicians need to consider two important factors. First, the goal to reduce viral load and increase CD4 cell count may be affected by the use of alcohol. Frequently in clinical practice, HAART is prescribed, and the patient does not respond to treatment as well as expected. One possibility is the use of alcohol. The other important point is alcohol may affect adherence to therapy. If patients are consuming heavy amounts of alcohol, they may not be compliant with medications. A recent study by Chesney demonstrated that HIV-infected subjects who consume alcohol frequently skip doses, stop medications, and forget to get refills, compared to non-drinkers.[3] It's important for clinicians to take these findings into consideration.

AIDS Alert: Should clinicians recommend psychiatric counseling for HIV patients who are abusing substances?

Shor-Posner: Since our questionnaires indicated that the majority of the drug users continue to consume large amounts of alcohol despite HIV diagnosis, I think that clinicians need to focus on prevention of high-risk behaviors to promote adequate treatment.

Miguez: In the literature, there are a number of very good articles about the impact of alcohol in HIV. Two notable studies indicate that people under the influence of alcohol frequently engage in HIV high-risk behaviors.[4,5] Some in vitro studies demonstrate that alcohol promotes HIV replication.[6,7] And the third article reveals that the risk of getting infected through high-risk sexual behavior is higher when you consume alcohol, because alcohol use impairs cellular responses that are critical in the control of the HIV virus.[8]

AIDS Alert: If you were discussing your study and results with a group of clinicians, what would be your advice about how to use this information?

Shor-Posner: I would hope that clinicians would use this information to enhance their assessment of risk behaviors prior to administration of HAART, and to increase their awareness of alcohol's potential impact on adherence and HIV disease progression.

Miguez: One of the strategies being used to promote adherence to medications in other diseases such as TB is directly observed therapy. If you have information that your HIV-infected patient abuses alcohol, perhaps a DOT [directly observed therapy] program needs to be implemented to ensure they'll take their medications.

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'Punctuated' HIV meds planned for TB patients

Can set-point for AIDS be kept low?

Researchers at Case Western Reserve University in Cleveland were the first to find convincing evidence that TB accelerates the progress of HIV (and, it turned out, vice versa). Now researchers at the school's TB Research Unit want to see whether a two-pronged approach to treating TB in HIV-positive patients can work to effectively delay the onset of AIDS.

In a trial at the research unit's field site in Uganda, TB patients co-infected with HIV will get a standard course of TB therapy, accompanied by a short course of antiretroviral therapy (ART). Researchers reason that the short burst of ART — dubbed "punctuated therapy" — would staunch the flow of certain cytokines triggered by the body's immune response to TB. And, because those cytokines trigger viral replication, stopping their flow might dramatically delay progress of the virus.

"What we're trying to do is develop a new notion of how to manage HIV," says **Chris Whalen**, MD, associate professor of epidemiology and biostatistics at Case Western. "We're trying to test the hypothesis that punctuated immune therapy during periods of intense immune activation may delay the time of immune suppression for months or even years."

The hypothesis dovetails with another theory HIV clinicians have been testing, at least in places where the HIV-infected have ready access to ART. Instead of starting ART immediately upon diagnosis, current thinking has it that perhaps it's better to delay until CD4 counts drop to 500 or perhaps even as low as 350, explains Whalen.

The ability to delay ART would obviate plenty of difficulties associated with noncompliance (patients who don't feel symptomatic, after all, are more likely to skip doses) and with some of the adverse effects turning up with long-term use of antiretrovirals.

A way to keep replication slow?

More important, Whalen says, it may be that there are two stages associated with management of HIV, each associated with its own "set point." If punctuated immune therapy could be used to halt the cascade of cytokines that accelerate viral replication, it could be that the set-point could be held at the first stage, and HIV therapy could thus be delayed for a time. "Instead of dipping down to 200, maybe we could keep a patient's CD4 count at 350 or 400, or wherever they started," he says.

In Africa, targeting TB makes sense. "It tends to occur earlier in the course of HIV, when immune set-points would presumably still be relatively high," Whalen notes. In the United States, other events that trigger intense immune activation might be found — bacterial pneumonia, perhaps. Again, the idea would be to treat such patients briefly with antiretrovirals and determine whether the progress of their HIV could be arrested for a time.

The intervention carries with it certain risks, such as viral rebound and the development of drug resistance, Whalen concedes. "We may find it's detrimental to withdraw [ART]," he says. If not, punctuated therapy would prove especially beneficial on a continent where most people will never be able to afford a lengthy course of HIV drugs.

If all goes according to plan, the trial will begin this fall. Then, if results are as Whalen hopes, the

country may roll the pilot out on a broader scale within two to three years.

"Uganda is poised to be a leader" in Africa when it comes to providing HIV therapy for its people, Whalen says. "They're very close to getting ART and training personnel to deliver it." ■

Diagnostic kit will target HIV neutralizers

Hemagen Diagnostics of Columbia, MD, a maker of diagnostic test kits, says it has completed the development of a new kit to identify individuals who have an antibody that appears to neutralize the HIV virus and prevents HIV infection from progressing into full-blown AIDS.

The test will detect the antibody to an epitope, called R7V. The marker is believed to distinguish HIV progressors from non-progressors. The test is being developed in conjunction with URRMA Biopharma, a Canadian-based company. URRMA has obtained an exclusive global license from INSERM for the use of a specific antibody (anti-R7V) in a diagnostic test and for the eventual use of the antibody as a therapeutic and preventive treatment for AIDS. Hemagen has an agreement to produce the diagnostic kit exclusively for URRMA. ▼

Pfizer offers fluconazole to some AIDS patients

New York City-based Pfizer has offered to provide fluconazole free of charge in least-developed countries for treatment of fungal infections in AIDS patients.

Gro Harlem Brundtlandt, director-general of the World Health Organization (WHO), hails the news, noting that fluconazole is an important drug for treating fungal brain infections and esophageal candidiasis.

She adds, "The private sector is showing it is willing to do its part to fight the HIV / AIDS epidemic. I am confident that they will work with governments and international organizations in their efforts to strengthen health systems so that they are able to provide the care needed. This is a great challenge for all of us."

A proposed multibillion-dollar global fund for health will, however, concentrate on AIDS

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prevention rather than on the mass purchase of expensive anti-retroviral drugs, says **David Nabarro**, executive director at WHO.

The fund is likely to be launched later this month at a UN conference on AIDS in New York City. **Kofi Annan**, the UN secretary-general, has said the fund needs $7 billion to $10 billion, but it looks likely to raise only $1 billion this year, with the United States pledging $200 million.

Nabarro estimates that 70% to 80% of the fund would be used to combat AIDS, with the remainder used for the prevention and treatment of tuberculosis and malaria.

Developing countries have expressed concern over the imposition of technocratic solutions that will prove impossible to implement. Even with offers of cheaper drugs from pharmaceutical companies, many experts say a mass AIDS treatment program with antiretrovirals still will be too expensive and difficult to administer. ■

CE objectives

After reading this issue of *AIDS Alert*, CE participants should be able to:

- identify the particular clinical, legal, or scientific issues related to AIDS patient care;
- describe how those issues affect nurses, physicians, hospitals, clinics, or the health care industry in general;
- cite practical solutions to the problems associated with those issues, based on overall expert guidelines from the Centers for Disease Control and Prevention or other authorities and/or based on independent recommendations from specific clinicians at individual institutions. ■

CIS # _____
Case Mgr _____

Medications Adherence Checklist

Date ____ / ____ / ____
Circle ONE: Pre-test 6-month

At this time, do you have any medications that your doctor or health care provider has prescribed for you? (either for HIV, or any other condition) (check ONE)?
____ YES ____ NO (do not complete the rest of the survey)

Most people have trouble taking their medications exactly as their doctors prescribe them all the time. Let's try to identify some of the reasons that might make it hard for you, either now or in the future.

Check all that apply, count and enter the total count of checked boxes in the TOTAL row.

	1. Do you have a pillbox? (check if "no")
	2. Do you have a refrigerator? (check if "no")
	3. Do you have a watch with a beeper or other type of alarm system that you can set to go off when it's time for your medications? (check if "no")
	4. Do you have someone who is supportive or helpful to you in taking your medications, a family member, partner, friend or someone else? (check if "no")
	5. Do you feel that if others know you're taking medications, they'll think worse of you, even if they don't know what the medications are for? (check if "yes")
	6. Are you afraid that if others know you have to take some medications, that they'll know you have HIV before you want them to know? (check if "yes)
	7. Do you feel that taking your medications will remind others that you have HIV and they'll think worse of you for having HIV? (check if "yes")
	8. Are you opposed to taking medications for a philosophical, spiritual or religious reason? (check if "yes")
	9. Are you afraid that your medications will cause bad side effects? (check if "yes")
	10. Do you feel uncomfortable around doctors, nurses, or other health care providers, or by being in a medical clinic? (check if "yes")
	11. Do you ever feel that your emotional or mental state (like your mood, or nerves) gets in the way of you taking your medications? (check if "yes")
	12. Do you think your medications are necessary? (check if "no")
	13. Do you feel overwhelmed by the number of pills you have to take? (check if "yes")
	14. Do you feel that your doctor or other health care provider can't treat you effectively because he or she doesn't understand your culture or cultural background? (check if "yes")
	15. Do you feel comfortable with how your doctor or health care provider relates to your gender, your sexual orientation or ethnic identity? (check if "no")
	16. Do you have a permanent place to live? (check if "no")
	17. Does alcohol or drug use ever interrupt or interfere with you taking your medications (like if it makes you forget to take your medications)? (check if "yes")
	18. Do you have trouble finding or affording the kinds of foods you're supposed to take with your medications? (check if "yes")
	19. Do you currently experience side effects from your medications that make it difficult to keep taking the medications? (check if "yes")

Medications Adherence Checklist

	20. Do you have a way to get to your doctor, health care provider and your pharmacy (or other place you pick up your medications)? (check if "no")
	21. Do you feel that it takes too long to get to your doctor or pharmacy or other place you pick up your medications? (check if "yes")
	22. Does your doctor or health care provider have convenient hours for your schedule? (check if "no")
	23. Does your pharmacy or location where you pick up your medications have convenient hours for your schedule? (check if "no")
	24. If your pharmacy or other medications pick-up location does not deliver medications to you, would it make a big difference in your ability to get your medications if it did deliver? (check if "yes")
	25. When you need to see your doctor or health care provider, can you get an appointment in a timely manner? (check if "no")
	26. Do you feel that your dose schedule interferes too much with your work or other life activities? (check if "yes")
	27. Do you have trouble physically taking pills or pills of a certain size, or any other problem getting your medications down? (check if "yes")
	28. Do you have medical insurance (either public or private) for your care? (check if "no")
	29. Do you have insurance or government coverage for your medications? (check if "no")
	30. If you are insured, do you have trouble making your co-payments? (check if "yes")
	31. Is your ADAP/insurance coverage currently pending (i.e. you don't have it yet, but you've applied) ? (check if "yes")
	32. Do you have trouble making and sticking to a budget? (check if "yes")
	33. If you can't afford your medications, has your doctor or another health care professional ever talked you about programs from pharmaceutical companies that might be able to help pay for your medications? (check if "no")
	34. Do your doctor and pharmacist speak a language you can understand well? (check if "no")
	35. In your native language, do you have trouble reading or understanding everything you read? (check if "yes")
	36. Do you know how to take your medications? (check if "no")
	37. Do you think it's important to take your medications correctly? (check if "no")
	38. Do you have trouble remembering to take your medications? (check if "yes")
	TOTAL

Source: AIDS Healthcare Foundation of Los Angeles; Chris Matthews, MD, San Diego.

AIDS GUIDE
For
Health Care
Workers®

Facts about HIV/AIDS and the epidemic's continued impact on gay and bisexual men

This group still has greatest risk, despite prevention efforts

The Centers for Disease Control and Prevention of Atlanta recently released a study showing that men who have sex with men (MSM) continue to be the population at highest risk for HIV infection, despite significant declines in their HIV infections rates since the peak years of the mid- and late-1980's. **(See chart, p. 87 of this issue of *AIDS Alert*.)**

Improvements in medication regimens and the relatively stable new national infection rate may have lulled some health care professionals into believing that prevention efforts are no longer as crucial for the gay and bisexual population. There have been significant strides made in reducing high-risk behavior among MSM, but these efforts must be continued and given even more emphasis as new generations of MSM emerge in the at-risk population.

The CDC lists these facts about MSM in the United States, offers ideas for prevention strategies, and explains why this population is particularly vulnerable to the HIV epidemic:

- The number of deaths from AIDS among heterosexuals added to the deaths among injection drug users still does not equal the 260,000-plus deaths among MSM.
- By gender, 70% of new HIV infections each year occur among men.
- MSM represent the largest proportion of new infections with 42%, heterosexual sex accounts for 33% of new infections, and injection drug use causes 25% of new infections.
- Categorized by race, 54% of new HIV infections occur among blacks, 26% among whites, 19% among Hispanics, and 1% among other races.
- As of December 2000, 774,467 AIDS cases have been reported in the U.S., with about 83% of those involving men. A total of 8,908 AIDS cases have been reported among children ages 12 and under.
- As of December 2000, 330,160 AIDS cases have been reported among whites, 292,522 were reported among blacks, and 141,694 were reported among Hispanics.
- Since the beginning of the epidemic, 448,060 deaths were reported through December 2000, more than 85% involving men.
- Of the total AIDS deaths, 206,909 were whites, 158,892 were blacks, and 77,698 were Hispanics.
- Throughout the 1990's, advances in HIV treatments led to dramatic declines in AIDS deaths and slowed the progression from HIV to AIDS. In recent years, however, the rate of decline for both cases and deaths has begun to slow,

and in 1999, the annual number of AIDS cases appeared to be leveling, while the decline in AIDS deaths has slowed considerably.

• More people are living with AIDS than ever before. In 1998, 274,624 people were living with AIDS; in 1999, there were 299,944 people living with AIDS; and in 2000, there were 322,865 people living with AIDS.

• Of the 800,000 to 900,000 people living with HIV in the United States, an estimated 365,000 to 535,000 are MSM.

• An estimated 16,800 MSM are infected with HIV each year, and MSM account for 42% of new HIV infections overall and 60% of new HIV infections among men.

• A seven-city study conducted between 1994 and 1998 found that in the 15-22 age group, 14.1% of young African-American MSM were infected, compared with 6.9% of Latinos and 3.3% of young white MSM.

• A six-city study conducted from 1998 to 2000 found that 30% of African-American MSM ages 23-29 were HIV-positive, compared with 15% of Latino MSM and 7% of white MSM.

• The proportion of MSM with gonorrhea, which can increase chances of contracting or spreading HIV by as much as two to five times, increased threefold from 4.5% in 1992 to 13.2% in 1999 in a 29-city study of STD clinics.

• From January to July of 2000, there were 66 cases of syphilis reported among MSM in southern California, compared to 26 cases during the same time period in 1999, a 150% increase. Similar outbreaks among MSM have been reported in New York, Chicago, San Francisco, and Seattle.

• STD outbreaks in several major cities across the United States have shown that 25%-73% of MSM with syphilis and 25%-54% of MSM with gonorrhea are co-infected with HIV.

• In one 12-city study, researchers found that 19% of HIV-positive MSM engaged in unprotected anal sex from 1996 to 1998, compared with 13% from 1995 to 1996.

• In 2000, health officials in San Francisco reported preliminary data indicating an increase in the estimated HIV incidence among MSM from 1.04% in 1997 to a projected 2.2% in 2001.

• Twenty years into the HIV epidemic, many older men who adopted safer sex practices in response to the initial health crisis may be finding it difficult to maintain these practices indefinitely.

• Surveys with MSM have found that some MSM may make false assumptions about their partners' HIV status. For example, an HIV-infected man may assume that his partner must be infected as well or he would insist on using a condom, while an uninfected man may assume his partner also is uninfected or he would use a condom.

• Effective antiretroviral therapy and the fact that HIV-positive people are living longer and healthier lives have created a false perception among some that HIV is no longer a major health threat.

• Some MSM falsely assume that individuals who are taking antiretroviral medication are no longer infectious and therefore don't need to practice safer sex.

• Younger MSM, many of whom have never known anyone infected with HIV or who have not seen the toll of AIDS first-hand, may be less motivated to practice safer sex.

• Social and economic factors, including racism, homophobia, poverty, and lack of access to health care, are barriers to receiving HIV prevention information, particularly for MSM of color.

• Researchers say the stigma placed upon homosexuality in communities of color may inhibit men of color from identifying as gay or bisexual, despite the fact that they're having sex with other men. In a recent survey of HIV-positive men infected through homosexual sex, 24% of African-Americans and 15% of Latinos described themselves as heterosexual, compared to about 6% of whites. This may prevent men of color from seeking or receiving the HIV prevention and treatment services they need.

• While white MSM have traditionally had access to HIV prevention information and services through well-established community networks, similar systems do not exist in African-American and Latino MSM communities, increasing the challenge of reaching these individuals. ■

AIDS Guide for Health Care Workers is written especially for the person working in the health care setting. It explains important issues concerning AIDS in a thorough, yet easy-to-understand style.