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IN THIS ISSUE

In This Issue **continued on next page**

ADAP woes deepen as budgets worsen and longevity improves

Could see capped enrollment, smaller formularies

Ever since the AIDS Drug Assistance Program (ADAP) faced the challenge of funding highly active antiretroviral treatment (HAART) in the late 1990s, there have been annual funding problems that resulted in some states capping enrollment, restricting drug formularies, and putting some HIV-positive clients on waiting lists.

But those typical annual problems are expected to escalate into a crisis in the second half of 2003 as state Medicaid cuts, flat ADAP funding, and double-digit increases in eligible clients have led to major ADAP shortfalls, ADAP officials say.

"If we don't get emergency support, we're talking about an AIDS community that literally will have sick people everywhere who can't access drugs," says **Bill Arnold**, director of the ADAP Working Group in Washington, DC.

For the past three years, the federal ADAP budget has had a rapidly growing shortfall, which in FY 2001 climbed from $60 million short of what was needed to a projected $146 million short of what is needed in FY 2003, Arnold told the House Appropriations Committee and Subcommittee on Labor, Health & Human Services & Education at a May 7 hearing.

The ADAP program needs an extra $282 million

(Continued on page 83)

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In This Issue **continued from cover**

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- **Financial booster shot needed:** The world is reaching critical tipping point between widespread HIV infection unless prevention work multiplies
- **Antiretroviral resistance update:** Clinical use of resistance testing is bringing more information and answers to patients
- **HIV history now dated to 60 years ago:** Research suggests HIV-2 was spread in West Africa in the 1940s
- **AIDS virus has 'glycan shield':** Investigators have found a unique way that HIV is protected from the immune system
- **Communities of color and HIV prevention:** Experts discuss what more needs to be done to stop the spread of HIV among African-Americans

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Editorial Questions

For questions or comments, call **Melinda Young** at (864) 241-4449.

over the 2004 budget to prevent waiting lists from growing to several thousand people, he says. **(See assumptions used by the ADAP Working Group, at right.)**

"We need an emergency supplemental [funding] just like states with tornadoes and the war in Iraq and last year for the farmers for bad weather," Arnold says.

A variety of factors are contributing to the current crisis:

- The number of people who qualify and need ADAP medications continues to increase as HIV-infected patients live longer and new HIV cases increase.
- State funding for ADAPs has remained flat for many states, and federal increases do not make up for the shortfalls.
- HIV patients who have lived a long time with the disease sometimes need more expensive medication regimens, including the newly approved fusion inhibitor Fuzeon, and treatment for hepatitis C, which impacts a large proportion of HIV patients.
- When states cut Medicaid funding and lower eligibility for Medicaid, more HIV-infected patients end up without insurance coverage and become newly eligible for ADAP, which also increases the ADAP caseload.

Earlier this year, GlaxoSmithKline and Pfizer Inc. announced they would freeze the prices of their antiretroviral drugs for two years to help state ADAPs.

Even so, the states, which typically provide a small portion of ADAP funding are struggling with budget deficit problems that make the situation even worse.

"We're looking at a range of problems associated mostly with state budget cuts," says **Murray Penner**, director of care and treatment programs for the National Alliance of State and Territory AIDS Directors (NASTAD) of Washington, DC.

For example, some states are making large Medicaid cuts at the same time that ADAP budgets are funded without increases. This pushes some HIV-positive people off Medicaid and onto ADAP lists.

"ADAP is a final safety net," he says. "So once people get off these other federal programs, they don't have other places to turn to except ADAPs."

Since ADAP is not an entitlement program, it depends on federal appropriations each year, Penner adds. "It's going to be a really tough year. We're looking at some of the largest programs and some of the most important ones in the country with major shortfalls, especially California."

NASTAD listed in the spring more than 20 states with current and anticipated ADAP funding problems serious enough to result in capped enrollment and waiting lists, prescription limits or formulary reductions, imposed cost-sharing, or lowered financial eligibility requirements. **(See story on state ADAP trouble, p. 84.)**

For instance, Alabama's ADAP had a waiting list of about 100 people for the first half of 2003, and this situation could worsen later in the year as the state deals with a $500 million deficit, says **Jane Cheeks**, JD, state AIDS director in the Alabama Division of HIV / AIDS Prevention and Control at the Department of Public Health.

Alabama's waiting list is nothing new, however. The state has had an ADAP waiting list for the past six years; and five years ago, there were 600 people eligible but unable to receive ADAP for a period of time, Cheeks says. "As we've gotten state funding in, we've been able to reduce the list."

Assumptions are made in new ADAP plan

Here are assumptions the Washington, DC-based ADAP Working Group used to make its funding projects for the coming year:

- ✔ **Starting population** (June 2002) — 84,378.
- ✔ **Monthly growth** — 635.
- ✔ **Prophylaxis only** — 10% (background rate for those on therapy is based on Florida. Of the remaining 90%, 3% mono, 5% dual, 73% triple, 15% quad and higher. Average — 3.12.
- ✔ **Antiretroviral use** based on Pennsylvania ADAP.
- ✔ **Inflation rate for opportunistic infections and other drugs** — 4.6% per year.
- ✔ **Other costs** (per person per month) — hyperlipidemia $5.48; insulin resistance $2.77; cardiovascular $5.32; gastrointestinal $11.58; antidiarrheals $1.44.

Assumptions based on new developments in treatment include:

- ✔ **Fusion inhibitors.** Fuzeon, approved this spring by the Food and Drug Administration, now is available. Estimates of Fuzeon utilization is based on availability reports and amount to about 20% of the available supply, which coincides with the ADAP patients in treatment. That calculates to about 2,500 slots by the end of FY 2003 and about 4,500 by the end of FY 2004. The cost is estimated at $24,500 per year for an entire course of the drug.
- ✔ **Waiting list.** Assumes that 1,200 patients will be on waiting lists in 2003. ■

North Carolina's waiting list dropped from 170 to zero by summer, but that situation is precarious and not expected to last through the end of the year.

"We've gotten a slight amount more than we had anticipated under the Ryan White award, but despite that increase, we still expect serious difficulty this year," says **Steve Sherman**, AIDS policy and ADAP coordinator with the Department of Health and Human Services in Raleigh, NC. Also, North Carolina's income eligibility limit for ADAP remains the nation's lowest at 125% of the federal poverty level, he adds. "There have been efforts made to increase the eligibility level, but if we can't serve everyone at 125% of poverty or if we can't make more dollars available, then raising the eligibility level is not going to enable us to serve everyone."

While some states have had chronic shortfalls in ADAP funding, for others there will be a rude awakening if the current budgetary woes continue. "Medicaid cutbacks are going on at the state level to try to balance budgets, and that affects people who are not on ADAP but now will knock on the door of ADAP for help," Arnold says.

The states to watch for signs of impending ADAP crises include some that have the nation's largest HIV populations, including California, Texas, Florida, and New York, he says. Earlier this year, the New York governor threatened to veto a budget that would temporarily avert an ADAP funding shortfall, and this is the sort of problem that many states are experiencing, Arnold adds.

Some smaller states may appear to have their ADAP crisis resolved, when in reality, they simply are ignoring the plight of many HIV patients who need ADAP drugs, he says. "Everybody thinks we can reduce eligibility, and the problem will go away. But the people who are HIV-infected don't go away; they live down the street from you, and now they don't have the medicine they need."

When this occurs, people who are infected and not receiving medication will end up getting sick and using the last-resort medical services of hospital emergency departments, Arnold says. "The one thing we know from our experience from 1985 to 1996 is full-blown AIDS untreated will kill a person in 18 months and cost the health care system roughly $150,000 per death," he explains.

This worst-case scenario would be a shift of the costs of HIV care to state health systems and public hospitals, which will, in turn, shift the costs to their insured patients and taxpayers.

"There will be increasing demands on county and state coffers to pay for bad debt or indigent care across the states," Sherman says. "And there will be increased demands on Medicaid because more people will be disabled."

Plus, everyone fortunate enough to have a job with insurance benefits will continue to see their premium costs rise as hospitals and health care providers continue to shift costs from Medicaid and indigent care to private insurers, he explains.

"The idea of raising taxes is not one that's popular at this moment," Sherman adds. "I think the reality is we're probably reducing our short-term expenses but increasing our long-term expenses, and that's something the political system has to deal with." ■

States handle shortfall in a variety of ways

Everyone reports higher costs, uncertainty ahead

States across the nation are gearing up for a cold fall and winter when it comes to funding for the AIDS Drugs Assistance Programs (ADAPs).

While the goal of each state ADAP is to provide HIV medications to each person who qualifies and needs treatment, the reality is that many states only can afford to assist a portion of those people. For ADAPs that find their state and federal funding doesn't cover everyone who qualifies, that may mean changes that could include capping enrollment, starting waiting lists, reducing the formularies, requiring generic drugs, cutting additional health care services, lowering financial eligibility, imposing cost sharing, and prescription limits.

Here's a nutshell look at a number of different states and how they have handled their current ADAP situation:

- **Alabama:** With a waiting list that has existed for six years, Alabama is accustomed to ADAP funding shortfalls. The waiting list grew to more than 100 in April.

"We've negotiated for the wholesale price of drugs, and we do whatever we can do," says **Jane Cheeks**, JD, state AIDS director in the division of HIV/AIDS prevention and control at the Department of Public Health in Montgomery.

"As far as we know, everyone who wants medication can get it through compassionate pharmaceutical programs or some other mechanism of

funding," she says. Also, in April, Alabama started a Medicaid AIDS waiver program, which means that if people meet certain criteria they will be eligible for Medicaid, Cheeks says. "That will take some people off our waiting list."

- **Florida:** The state has avoided having ADAP waiting lists, although ADAP officials have been concerned that they might have to cap enrollment for the past two years, says **Joseph May**, AIDS Drug Assistance Program manager for the HIV/AIDS program at the Florida Department of Health in Tallahassee.

"We received an $8 million increase in federal funds on April 1, and that has bought us a little time," he says. The federal funding increase was welcome news because the state's own ADAP funding has remained level for the past two years, and there may be state budgetary concerns since the state's constitution prohibits a deficit, May says.

Formulary change could cost millions

Also, Florida's ADAP has added the infusion inhibitor Fuzeon to its formulary, and it's possible this drug could cost the program millions of dollars extra, he adds.

So far, only three of Florida ADAP's 13,000 clients have been prescribed Fuzeon, which costs the state roughly $25,000 a year, May says. Fuzeon's cost is in addition to the patients' other highly active antiretroviral treatment (HAART), which costs an average of $15,000 a year, because patients who receive Fuzeon still take the other antiretroviral medications as well, he adds.

"We don't want to sound alarmist necessarily, but if everything stayed the same and Fuzeon took off, probably by October, we'd be very concerned," May says.

- **Indiana:** Last year, Indiana's ADAP had a waiting list that approached 70 names, but the funding situation improved, and there was no waiting list through spring 2003, says **Larry Harris**, ADAP administrator with the HIV/STD division at the Indiana State Department of Health in Indianapolis.

In Indiana, there is a Health Insurance Assistance Program (HIAP) in which the bulk of the 1,270 ADAP clients are enrolled. The program provides comprehensive medical services, along with the necessary medications to HIV-positive patients, he explains.

"What happens is people sitting in ADAP are waiting for the pre-existing period before rolling over to HIAP," Harris says.

Federal grant funding provided $1 million more than the state anticipated, and that has helped prevent the need for a waiting list, he says. Although the state has a hiring freeze and the typical budgetary concerns that most states are experiencing this year, ADAP officials do not anticipate a major problem for the remainder of 2003, Harris explains.

- **Kentucky:** Earlier this year, the Kentucky ADAP had a waiting list of more than 140 people. The situation improved after the April 1 federal grant was received, and the waiting list fell to around 110, but since the state has about 20 new ADAP applications each month, it's likely the waiting list will continue to grow through 2003, says **Trista Chapman**, Kentucky ADAP coordinator with the Department of Public Health in the HIV/AIDS branch in Frankfort.

"It's possible it will be next April 1 before more people are taken off the waiting list," she adds. State ADAP funding has remained at $90,000 for many years, and Kentucky received a slight increase in federal grant funds this year, Chapman says. While ADAP officials once were hopeful that the state's Medicaid program would raise its income level for eligibility and, therefore, begin serving some of the clients who currently receive HIV drugs through ADAP, now it's clear that will not occur, she says. "Medicaid has a deficit."

- **Nebraska:** The waiting list of 29 clients, which held steady through the spring, amounts to about 17% of Nebraska's average number (168) of ADAP clients per month, says **Russell Wren**, program manager for Ryan White Title II in the division of disease control in the Nebraska Department of Health in Lincoln.

Also, Nebraska has had to cut its drug formulary from 95 drugs to 19 drugs, all of which are antiretrovirals. Although the other drugs only amounted to about 2.5% of the drug budget, that small amount of extra money was needed to serve clients, he says. "We've consistently received $150,000 in state funding since 1999," Wren says. "Our legislature is debating the next biennial budget, and we don't know if any cuts will be made in our funding."

The state's waiting list began in November 2002 and has continued as the state's new client caseload has averaged five to seven people per month, he adds. "I don't think the situation is going to get any better because we already know there's an increasing need. We've capped enrollment where it is right now."

Meantime, the state is cutting Medicaid because of budget problems, and the ADAP program

may find its waiting list grow as former Medicaid patients now need ADAP help, Wren adds.

- **New Hampshire:** The state's ADAP had a 25% increase in clients last year, and there's a fiscal crisis as a result, says **Sarah Duffley**, care program administrator with the Department of Health and Human Services in Concord.

The state's ADAP growth previously was in the 15% range, so the recent jump is a new and alarming change, she says.

It could be that more people are finding out that they are HIV-positive, or it could be that some HIV-positive people are moving to New Hampshire, Duffley says. "We don't know why that is happening, but we did have more clients."

Meanwhile, she says, the state's funding for ADAP increased by less than 1%. "We're examining all sorts of possibilities of how to provide the most services to the greatest number of clients. We have an open formulary now, and we are considering restricting the formulary and having a waiting list."

Another possible option is to have a preferred drug list, so that if an ADAP client has an infection, the person can be treated with a less expensive antibiotic before using a more expensive drug, Duffley says.

- **North Carolina:** The state's waiting list, which had existed on and off since December 2001, climbed to 170 in April but dropped to zero by midspring with the expectation that the waiting list would begin all over again by summer, says **Steve Sherman**, AIDS policy and ADAP coordinator in the Department of Health and Human Services in Raleigh.

Since the state's ADAP likely will receive no funding increases the remainder of this year, the program's ability to enroll new clients mostly will depend on how much money is left after it serves the existing caseload, he says.

And it's difficult for North Carolina ADAP officials to predict a monthly utilization this year because their client load dramatically changed after the annual, January-March reauthorization of ADAP clients, Sherman says. "Every year when this happens, we lose a fairly large number of clients, probably between 20% and 25% of the people enrolled in one program. Maybe they became Medicaid eligible or moved or died, or other reasons."

This year the turnover was even higher, so ADAP officials have no idea how costly this summer's caseload will be, Sherman says.

But even under best-case scenarios, there likely will be a waiting list during the second half of 2003. North Carolina's state budget has had major shortfalls in recent years, and there have been major state cutbacks, Sherman says. "ADAP hasn't lost any money when other human service programs have, so many of us consider it to be a win."

- **Texas:** In late April, I. **Celine Hanson**, MD, chief of the Bureau of HIV and STD Prevention in Austin, forecast that the Texas HIV Medication Program will have a $12 million budget shortfall in 2004 and a $16 million shortfall in 2005.

To address this budgetary problem, the Texas Bureau of HIV and STD Prevention decided to examine the program for internal efficiencies and cost-saving measures, seek financial assistance from outside resources and, as a last resort, modify the current formulary, limiting cost per client of medications provided or cap enrollment, she says.

The Texas ADAP has experienced a dramatic increase in HIV drug costs in recent years, with costs rising 21% between 1999 and 2000 and 11.1% between 2000 and 2001. Total HIV medication costs in 2001 exceeded $50 million, and state officials estimate that this year's financial need will rise to $64 million, about $7 million short of what is budgeted, according to a Texas Department of Health fact sheet. ■

On-line dating: Is it a new 'computer virus'?

Connection between on-line partners, risky sex

A recent study shows a link between very high-risk sexual behavior and meeting sex partners on-line, according to New York researchers.

Investigators surveyed people via the Internet last summer for a study about men engaging in high-risk sexual behavior.

"Our first focus was not on the Internet as a method of meeting people," says **Mary Ann Chiasson**, DrPH, vice president of research and evaluation at the Medical & Health Research Association of New York City. "Our original intent was really to use the Internet as a tool. Our first surprise was that we had a large and rapid response to the survey."

Just under 20% of the survey participants reported having sex with both men and women, Chiasson notes. "That's certainly a group of men that prevention people are interested in meeting."

And the study concluded that the Internet plays a role in connecting new sexual partners who engage in unprotected anal sex, especially among HIV-positive men.[1]

"What this study tells me is that we are seeing a resurgence in high-risk behavior and that either the prevention messages are no longer working or we need new prevention messages," she says. "Or we have a new population of younger men who haven't heard the messages and haven't seen the devastation of the epidemic."

For the next survey, investigators will explore how the advent of highly active antiretroviral therapy has changed the way people at risk think about HIV, Chiasson says. "We hear anecdotal reports that people don't think AIDS is a big deal anymore, and that may play into a resurgence of risk behavior."

Drug use also was commonly reported by those answering the survey. About one-third of respondents reported using marijuana; one-third reported drinking until drunk at least once a week; 8% reported cocaine use; and 20% reported club drug use, she explains.

The ease with which investigators found both HIV-positive men and at-risk men who engage in risky sexual behaviors demonstrates that the Internet might be an ideal tool for certain types of prevention messages, Chiasson adds. "I think the biggest, the most important message from this study is that the Internet has great potential for intervention activities."

Internet prevention strategies are inexpensive, and they direct messages privately to people in their homes, she adds. Moreover, the target audience can be found easily through general interest web sites for gay men, Chiasson says. "There are many sites on the Internet that are solely devoted to sex, and we did not use those sites," she adds. "We had a banner in chatrooms, and they could click on the banner if they wanted to participate."

Reference

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Research shows a need for post-exposure advice

May help reach those who need counseling

A San Francisco study of a telephone hotline for people who may have been exposed to HIV through nonoccupational risk behavior shows that there is a reasonable demand for post-exposure prophylaxis (PEP).

For purposes of a randomized PEP counseling study, investigators monitored a PEP telephone and counseling line that received nearly 1,000 calls within a 15-month period.[1]

Advertisements for the study hotline were targeted to venues that men who have sex with men (MSM) frequent, including organizations that provide medical services, says **Michelle Roland**, MD, assistant professor of medicine at the University of California, San Francisco (UCSF) Positive Health Program at San Francisco General Hospital.

Callers who were able to meet with study staff could participate in the study. While the study offered counseling and HIV prevention, as well as PEP prescriptions, the majority of callers who had qualified and agreed to participate in the study received a PEP prescription. The prescription often was provided by telephone because the caller was unable to meet with the study staff on the same day that the call was made, she says.

"We provided PEP in conjunction with [two or five] sessions of risk-reduction counseling because one of the biggest concerns about PEP is that people might rely on a secondary biomedical intervention and be less diligent about primary prevention, and we really want to help people stay safer in the future," Roland says.

The PEP intervention targeted MSM who are at high risk for HIV infection through advertising directed specifically to this audience, she says. "We did outreach to organizations that provide medical services to [MSM]; and as a result of that targeted outreach, we definitely were able to access the kind of people we thought would be most likely to benefit from PEP."

"What was important to me . . . is we were able to provide a service through our studies over the years, and the time to continue to do these studies is coming to an end in San Francisco," Roland adds. "So there's going to be a vacuum created when we stop doing these studies."

The study concluded that the majority of exposures from callers to the study line merited PEP prescriptions and providing PEP may help reach high-risk people for prevention counseling.[1]

A national PEP service could provide technical

assistance to health care providers, but it would take local PEP interventions targeting at-risk populations to replicate the services and success of the San Francisco intervention, Roland says.

Considerations in starting a PEP intervention service include the following:

- "How will you provide rapid access? Will you have a telephone number, drop-in service?" Roland asks.
- What criteria will you develop to determine eligibility based on potential exposure to HIV?
- What kind of medical monitoring will be necessary, such as HIV, hepatitis, and sexually transmitted disease testing?
- How will a partnership be formed with local mental health services?
- What comprehensive prevention and risk-reduction counseling and education will be provided?

"You can't make PEP too easy — where someone can come in and do whatever they want and then take pills without getting any counseling," Roland says. "This is a serious thing — not a morning-after pill. Our goal is to keep people HIV negative now — but also in the future, so the bigger issues need to be addressed."

- How much will the PEP program cost, and how will it be funded?

It's estimated that a 28-day course of antiretrovirals for a single exposure to HIV could cost between $600 and $1,000.[2]

The San Francisco PEP study prescribed Combivir for 90% of the PEP cases, Roland says. The cost is a drawback to making PEP readily available because the actual risk of becoming infected with HIV after a single episode of penile-anal sexual exposure is estimated to be very low, from 0.1% to 3%.[2,3]

Roland and co-investigators began to study PEP services after the 1996 health care worker study was published and occupational guidelines were changed. "The first question we tried to tackle was should we do an efficacy study, and that was problematic because we didn't think a randomized control study would be ethical, so instead we did a feasibility study.

"We showed that people with high-risk exposures sought the PEP and had a lot of symptomatic side effects, such as fatigue, nausea, and headache, but no lab abnormalities," she says. "They adhered well, and there was a reduction in self-reported risk behavior at six and twelve months."

Although the earlier study did not attempt to analyze the efficacy of PEP, investigators noted that there were no new HIV infections within the first six months following the PEP consultation, and in the second six months, there were four seroconversions, all related to ongoing exposures, Roland says.

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Studies link HIV drugs and bone density problems

Research examining HIV in children and women

Several recent studies add to the evidence that HIV infection and possibly highly active antiretroviral treatment (HAART) increase risks or at least are associated with the loss of bone mass among women and children.

The research suggests that clinicians should watch for bone density loss and osteoporosis risk factors among their HIV-infected patients and evaluate bone mass in those who are at risk.

"If you were going to think how this affects your practice, then limit screening to those women who are perimenopausal or post-menopausal and who are low weight and smoke," says **Michael T. Yin**, MD, a clinical fellow in infectious disease at Columbia University in New York City.

Yin was the principal investigator of a study that found that lumbar spine osteoporosis is considerably higher in HIV-infected Hispanic and African-American, post-menopausal women than among racially comparable healthy populations.

The study concluded that diagnosis and treatment of osteoporosis should play a more prominent role in the long-term management of the female HIV population as this population ages.[1]

"There is some suggestion that bone deterioration doesn't seem to really take off until around the menopausal period, even for HIV-positive patients," he says. "And there are several

hypotheses for this, including that there is an interaction between estrogen deficiency and HIV infection or treatment."

Another theory is that this population of HIV-infected women is different from the general population because they may not have reached their peak bone mass since they were ill at an early age, Yin says.

"It's been suggested in both epidemiological studies and in some in-vitro experiments that protease inhibitors can affect the bone mass. The best type of study would start off with people infected pre-menopause and before they got HIV treatment and just follow them for many years," he explains.

Boston investigators also have been examining the association between low bone-mineral density and the use of antiretroviral medications in HIV-infected women.

"We found that 34% of the 44 Caucasian women with HIV had signs of low bone-mineral density, and all but one were osteopenic," says **Denise Jacobson**, PhD, MPH, assistant professor at the Tufts University School of Medicine in Boston.

The only severe case was a woman with osteoporosis among the group that had a mean age of 39, she says.

"By comparison, I haven't been able to find a percentage of women in this age group in the normal population who would have osteopenia," Jacobson says. "If you use a different bone scan for women ages 50 to 59, you find that 37% have osteopenia or osteoporosis; but that's not the same scan, and you can't infer that women with HIV are seeing this disease early on."

The Boston study also examined the change in bone marrow density over time and found that 42 of the 44 women had changes in their two-year follow-ups, she says. "The change over time was not associated with age or being African-American vs. Caucasian or Hispanic, and the change was not related to smoking."

"We didn't find any association with their viral load or with overall HAART use; but we're exploring associations with different types of HAART, and the numbers are small," Jacobson adds.

There was a significant positive correlation between a change in the bone-mineral density over the two-year period and a change in lean body mass over the same interval.[2]

It's still premature to recommend that clinicians screen all female HIV-infected patients for bone scans, she says.

"As an epidemiologist, I could say we need to develop predictors of low-mineral bone density that would indicate when it's appropriate to scan a patient," Jacobson adds. "Predictors could be other risk factors, lifestyle factors, and clinical risk factors."

In another study of HIV-infected children, Texas investigators found that 75% of the children studied had some decreased bone mass when compared to a healthy population of children. Of 26 children who completed the study, 18 (69%) were taking protease inhibitors; most exceeded or met the recommended daily amount of calcium, and 17 children had osteopenia, and six had osteoporosis.[3]

Unanswered question regarding children

The study could not explain why HIV-infected children have decreased bone density, says **Heidi Schwarzwald**, MD, MPH, assistant professor at the Baylor College of Medicine in the department of pediatrics at the Baylor International Pediatric AIDS Initiative in Houston.

The study's findings suggest that HIV-infected children may be at risk of not developing adequate bone density in their youth, which could result in major problems when they are adults, she says.

"Most of these kids are not at risk for any fractures," Schwarzwald says. "But it's a long-term risk, and they're at higher risk later on in life and probably will have fractures at age 40."

More research into how HIV and HIV medications impact bone density among children is needed, she notes.

"We saw increasing numbers of adult studies and were interested in seeing bone density data in children," Schwarzwald says. "Now that we're seeing bone density decreases in kids, we need to find a solution."

References

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FDA Notifications

New dosing option approved for Viracept

The FDA has approved a new alternate dosing formulation of Viracept (nelfinavir mesylate). Viracept has been available in 50 mg oral powder and 250 mg tablets. The new formulation of 625 mg reduces the pill burden from five 250 mg tablets twice a day to two 625 mg tablets twice a day, potentially facilitating adherence to treatment regimens. Viracept is a protease inhibitor indicated for the treatment of HIV-1 infection in combination with other antiretroviral agents. The 250 mg tablet and oral powder received marketing approval in 1997 based on substantive evidence of efficacy and safety. Results of the bioequivalence study of the 250 mg tablet and the 625 mg tablet revealed increased bioavailability with the 625 mg tablet.

The sponsor, Agouron Pharmaceuticals, has submitted clinical safety and pharmacokinetic data to FDA providing evidence that the higher exposures do not pose a safety risk. However, diarrhea may be more common in patients receiving the 625 mg formulation. No efficacy information is contained in this submission because it is unlikely that a more bioavailable formulation would be less efficacious. ▼

Labeling rule proposed for dietary supplements

The FDA has proposed a new regulation requiring current good manufacturing practices in the manufacturing of unadulterated dietary supplements. The proposed rule would attempt to ensure that dietary supplements and dietary ingredients are not adulterated with contaminants or impurities and are labeled to accurately reflect the active ingredients.

The rule includes requirements for designing and constructing physical plants, establishing quality control procedures, and testing manufactured dietary ingredients and supplements. It also includes proposed requirements for maintaining records and for handling consumer complaints. In recent years, analyses of dietary supplements by a private-sector laboratory suggested that a substantial number of products analyzed may not contain the amounts of dietary ingredients identified on the product labels. For example:

- Five of 18 soy- and/or red clover-containing products were found to contain only 50% to 80% of the declared amounts of isoflavones.
- Of 25 probiotic products tested, eight contained less than 1% of the claimed number of live bacteria or the number of bacteria that would be expected to be found in such a product.

The FDA also has encountered products being marketed that are not accurately labeled or contain contaminants that should not be present or may be harmful. For example:

- One firm recalled dietary supplements contaminated with excessive amounts of lead, which may have posed a health risk to many consumers, especially children and women of childbearing age.
- Another firm recalled a niacin product after it received reports of nausea, vomiting, liver damage, and heart attack associated with the use of the product. A dietary ingredient manufacturing firm had mislabeled a bulk ingredient container that subsequently was used by another firm in making a product that contained almost 10 times more niacin than the amount that may be safe.
- Another firm recalled its product after it was found that a dietary supplement containing folic acid, which is often taken by women to reduce the risk of having a baby with neural tube defects, contained only 35% of the amount of folic acid claimed on the label.

Under the proposal, manufacturers would be required to evaluate the identity, purity, quality, strength, and composition of their dietary ingredients and dietary supplements. If dietary supplements contain contaminants or do not contain the dietary ingredient they are represented to contain, the FDA would consider those products to be adulterated.

The rule is intended to cover all types of dietary supplements. However, to limit any disruption for dietary supplements produced by small businesses, the FDA is proposing a three-year phase-in of a final rule for small businesses. The proposal includes flexible standards that can evolve with improvements in the state of science, such as in validating tests for identity, purity, quality, strength, and composition of dietary ingredients.

Information, including the proposed rule, may be found on the FDA's web site:

- **Fact Sheet.** http://www.fda.gov/bbs/topics/NEWS/dietarysupp/factsheet.html.
- **Backgrounder.** http://www.fda.gov/bbs/topics/NEWS/dietarysupp/background.html.
- **Proposed Rule.** (PDF 89.5 MB) www.fda.gov/OHRMS/DOCKETS/98fr/96n-0417-npr0001-01.pdf. ▼

FDA completes first phase of Drugs@FDA

The FDA recently completed the first phase of Drugs@FDA: A Catalog of FDA-Approved Drug Products. This pilot project is designed to be a searchable Internet source for official information about FDA-approved brand name and generic drugs, including those for the treatment of HIV/AIDS and related conditions.

Prescription, over-the-counter, and discontinued drugs are included in the database. Links are provided to access approval letters, labels, and scientific reviews. The majority of labels, approval letters, reviews, and other information are available for drug products approved from 1998 to the present. The first phase ended May 21, and the next phase of the project will be announced this summer.

For more information, go to: www.fda.gov/. ■

Race against SARS: Can pandemic be prevented?

Gerberding J. **Faster . . . but fast enough? Responding to the epidemic of severe acute respiratory syndrome.** Editorial. *N Engl J Med* published on-line April 2, 2003, at www.nejm.org.

The public health response to severe acute respiratory syndrome (SARS) has been strikingly rapid on many fronts, but a global pandemic of a new infectious disease still is a real possibility, the author warned. "Concern is mounting about the potential for spread in schools, the workplace,

CE/CME *questions*

1. AIDS Drug Assistance Programs (ADAPs) are expected to have a multimillion-dollar shortfall in the next year. Which is not a way cash-strapped states are trying to keep their ADAPs solvent?
   A. through capped enrollment and waiting lists
   B. through reduced formularies
   C. through generic drug use and lowered financial eligibility
   D. through raising taxes
2. A study found the Internet serves as a way for MSM to meet to have high-risk sex. According to the survey of MSM who meet via the web, what are some high-risk behaviors that are common?
   A. Club drug use is common, and just under 20% of the survey participants reported having sex with both men and women.
   B. Survey participants reported high rates of injection drug use.
   C. Male prostitution was listed as a common risk factor among survey participants.
   D. all of the above
3. Which is an important consideration when an HIV clinic or organization considers starting a program to prescribe PEP for a nonoccupational exposure population?
   A. How will the clinic provide rapid access?
   B. What sort of criteria for eligibility will be developed?
   C. How will the program be funded?
   D. all of the above
4. Several recent studies found that low bone-mineral density and osteopenia or osteoporosis are commonly found among which population of HIV-infected individuals?
   A. post-menopausal African-American and Hispanic women
   B. pre-menopausal Caucasian women
   C. children
   D. all of the above

Answer Key: 1. D; 2. A; 3. D; 4. D

CE/CME *directions*

To complete the post-test for *AIDS Alert*, study the questions and determine the appropriate answers. After you have completed the exam, **check the answer key, above**. If any of your answers are incorrect, re-read the article to verify the correct answer. At the end of the semester in December, you will receive an evaluation form to complete and return to receive your credits.

airplanes, and other crowded areas," wrote **Julie Gerberding**, MD, MPH, director of the Centers for Disease Control and Prevention. "New cases among travelers from affected areas continue to emerge and have led to infections in household contacts and health care personnel in many countries, including the United States and Canada. The epidemic of SARS is apparently only months old, and it is entirely to soon to predict its ultimate scope or magnitude."

Epidemiologic evidence indicates that the transmission of SARS is facilitated by face-to-face contact, and this still appears to be the most common mode of spread. However, airborne transmission may have a role in some settings and could account for the extensive spread within buildings and other confined areas that has been observed in some places in Asia, she wrote. "Certainly, airborne transmission will make containment of the epidemic much more challenging," Gerberding noted. If the new coronavirus proves to be the cause of SARS, fomite or other modes of transmission could also be relevant, since coronaviruses can survive on contaminated objects in the environment for at least a few hours and have been isolated from the stool of some animals.

"Despite our long experience with other viral respiratory infections, we have no proven, successful population-based strategy for their prevention," she conceded. "Even when we have an effective vaccine, as in the case of influenza, annual infection rates and attributable mortality remain very high. If SARS transmission evolves to mimic that of influenza, containment may well be impossible without vaccination, prophylaxis, or treatment." There are reasons to be optimistic about future control measures, Gerberding added.

Vaccines are successful in preventing coronavirus infection in animals, and the development of an effective vaccine against this new coronavirus is a realistic possibility. Likewise, novel antiviral agents, antiviral drugs in development, or existing licensed drugs could be found to provide effective prophylaxis or treatment. "The emergence of SARS presents formidable global challenges," she concluded. "If we are extremely lucky, the epidemic will be curtailed, develop a seasonal pattern that will improve prospects for regional containment, or evolve more slowly than it has in this early stage. If the virus moves faster than our scientific, communications, and control capacities, we could be in for a long, difficult race. In either case, the race is on. The stakes are high. And the outcome cannot be predicted." ■

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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. ■