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HIV/AIDS advocacy groups say increasing FY08 Ryan White funding will be another challenge

ADAPs, prevention, research suffer flat-funding, cuts

It's been difficult for HIV/AIDS advocacy groups to generate national attention in yet another dismal federal budget year about increasing HIV funding for the newly reauthorized Ryan White Care Act. But there are many signs that the need is at a critical point.

"The Ryan White Care Act has been inadequately funded for several years, and all parts of it have been under-funded, which has created gaps in access to care and treatment," says Ryan Clary, policy advocate for Project Inform of San Francisco, CA.

For instance, in South Carolina, at least four people have died while on a state waiting list for receiving medication through the AIDS Drug Assistance Program (ADAP). State health department officials will not comment on the deaths, but they do confirm that the waiting list, which started growing rapidly last summer, is now up to more than 500 people.

"We're waiting anxiously to hear what money we'll get under the new Ryan White Care Act," says Noreen O'Donnell, program manager for Ryan White Part B of the South Carolina Department of Health & Environmental Control (SCDHEC) of Columbia, SC.

"In theory, we should rank high because we have a waiting list of 512 folks," O'Donnell says.

South Carolina's ADAP problems have been building, but the crisis began when the last federal emergency ADAP funds, which gave more than $1 million to the state, were not renewed in 2006, says Karen Bates, co-chair of the South Carolina Campaign to End AIDS of Columbia, SC.

"Another problem is we have a rising need," Bates says. "South Carolina is consistently ranked in the top 10 in its rate of new HIV infections."

Other states with recent waiting lists are Alaska, Montana, and Puerto Rico. Alabama, Indiana, and Puerto Rico have capped enrollment in ADAP, and South Carolina reduced its formulary within the past year.

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Michigan has instituted formulary management, and Oklahoma has an annual per capita expenditure limit. Also, a number of states have limited access to Fuzeon and Aptivus, according to data collected by the National Alliance of State & Territorial AIDS Directors (NASTAD).

ADAP funding problems would have been more pronounced if it weren't for some states putting in a total of $51 million more to ADAPs and the one-time help from Medicare Part D drug benefit, which was worth between $100 million and $110 million, says Bill Arnold, director, the ADAP Working Group and TII CANN - Title II Community AIDS National Network of Washington, DC.

The reason South Carolina's ADAP is in such a crisis is because the state's funding for ADAP is very low at $500,000 per year, while some other rural Southern states chip in more than $10 million per year, Arnold says.

"It caught up with South Carolina," he says.

HIV/AIDS advocates have been meeting with South Carolina legislators, holding prayer vigils, talking with local media, and staging demonstrations and rallies to bring attention to the problem, Bates says.

SCDHEC estimates it would require close to $5 million in annual state funding to eliminate the current ADAP waiting list. State officials say there were 12,971 people diagnosed with HIV through mid 2005, and about 42 percent of these people were not receiving HIV care.

"Funding is an enormous issue, and that's the simple answer," O'Donnell says.

In January and February 2007, SCDHEC invited consultants to review the ADAP program and see if there were any areas that could be cut to maximize efficiency. The consultants reported that it was run very tightly, so no recommendations were made, O'Donnell notes.

"We're keeping our fingers crossed for a federal grant award, and we hope we get a bump in funding," O'Donnell adds.

As of early April, the state's HIV/AIDS activism had not yet resulted in an increase to state ADAP funding, although advocates have requested $8 million in recurring funds.

"Some of our legislators have expressed the notion that people with HIV got the disease because of bad behavior on their part, so why should we pay to give them medication," Bates says.

Bates responds to that sort of prejudice with the question of who exactly on the ADAP waiting list they'd like to see die.

"I know people who are on the ADAP waiting list, and one is going to Clemson University, and one is going to Furman University, and they're young and have their whole lives ahead of them," Bates says. "With the right treatment they can go on to graduate and lead productive lives."

In another example of how little South Carolina's leadership understands the epidemic and current treatment, one legislator shed tears after hearing an HIV-positive woman describe giv-

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Editor: **Melinda Young**, (864) 241-4449.
Senior Vice President/Group Publisher: **Brenda Mooney**, (404) 262-5403, (brenda.mooney@ahcmedia.com).
Associate Publisher: **Lee Landenberger**, (404) 262-5483, (lee.landenberger@ahcmedia.com).
Associate Managing Editor **Jennifer Corbett**, (404) 262-5431 (jennifer.corbett@ahcmedia.com).

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FY 2008 Appropriations for Federal HIV/AIDS Programs

March 29, 2007; (Increases or decreases from previous fiscal year are shown in parentheses; fiscal year 2008 requests reflect increase over FY 2007)

AIDS BUDGET AND APPROPRIATIONS COALITION

FY 2008 Appropriations for Federal HIV/AIDS Programs

March 29, 2007
(Increases or decreases from previous fiscal year are shown in parentheses; fiscal year 2008 requests reflect increase over FY 2007)

	PROGRAM	FY 2005 Final[1]	FY 2006 Final[2]	FY 2007 Joint Resolution	FY 2008 President's Budget Request	FY 2008 Coalition Request
HRSA	**HRSA: Ryan White CARE Act Total**	$2,048 m (+ $28.4 m)	$2,036 m (- $10 m)	$2,112 m (+ $75.8 m)	$2,133 m (+$21 m)	$2,794.3 m (+$682 m)
	Title I	$610.1 m (- $4.92 m)	$604 m (- $6.1 m)	$604 m (+ $0 m)	$604 m (+$0 m)	$840.4 m (+ $236.4 m)
	Title II: Care	$334.3 m (- $2.73 m)	$331 m (- $3.3 m)	$406 m (+$75.8m)	$400.98 m (-$5.02 m)	$463.4 m (+$56.9 m)
	Title II: ADAP	$787.3 m (+ $38.41 m)	$789.1 m (+ $2.2 m)	$789.1 m (+$0 m)	$814.5 m (+$25.4 m)	$1,022 m (+$232.9 m)
	Title III	$195.6 m (- $1.6 m)	$193.5 m (- $2.0 m)	$193.5 m (+ $0 m)	$199.82 m (+$6.32 m)	$281.3 m (+$87.8 m)
	Title IV	$72.53 m (- $0.58 m)	$71.8 m (- $0.73 m)	$71.8 m (+ $0 m)	$71.8m (+$0)	$118.2 m (+ $46.4 m)
	Part F: AETCs	$35.06 m (- $0.28 m)	$34.7 m (- $0.36 m)	$34.7 m (+ $0 m)	$28.7 m (-$6 m)	$50.0 m (+ $15.3 m)
	Part F: Dental	$13.22 m (- $0.11 m)	$13.1 m (- $0.12 m)	$13.1 m (+$0 m)	$13.1 m (+$0 m)	$19 m (+$5.9 m)
	(SPNS)	($25.0 m)	($25.0 m)	($25.0 m)	($25.0 m)	($25.0 m)
	HRSA: Community Health Centers	$1.734 b (+$116.4 m)	$1.782 b (+ $48 m)	$1.989 b (+$206.9 m)	$1.944 b (-$45 m)	$2.189 b (+$200 m)
	HRSA: Title X	$286 m (+ $7.7 m)	$283.14 m (- $2.86 m)	$283.10 m (- $.04 m)	$283.1 m (+$0 m)	$385 m (+$101.9 m)
CDC	**Total - HIV, STD, TB, Hep line**	$960.7 m (- $2.2 m)	$963.8 m (-$14.2 m)	$963.8 m (+$0 m)	$1,056.8 m (+$93 m)	$1,597.3 m (+$633.5 m)
	HIV Prevention & Surveillance	$662.3 m (- $5.6 m)	$651.7 m (- $11.2 m)	$651.7 m (+$0 m)	$745.1 m (+$93.4 m)	$1,049.2 m (+ $397.5 m)
	STD Prevention	$159.6 m (+ $1.0 m)	$157.3 m (- $1.6 m)	$157.3 m (+$0 m)	$157.3 m (+$0 m)	$267.3 m (+$110 m)
	TB Prevention	$138.8 m (+ $1.4 m)	$136.7 m (- $0.8 m)	$136.8 m (+$0 m)	$136.8 m (+$0 m)	$252.4 m (+$115.7 m)
	Viral Hepatitis	$17.91 m (+ $.31 m)	$17.58 m (- $0.24 m)	$17.59 m (+$0 m)	$17.59 m (+$0 m)	$28.4 m (+$10.8 m)

[1] The Omnibus FY 05 Appropriations bill calls for an across the board 0.8% rescission and is reflected in these figures

[2] The FY 06 Appropriations bill calls for an across the board 1% rescission and is reflected in these figures

FY 2008 Appropriations for Federal HIV/AIDS Programs

PROGRAM	FY 2005 Final	FY 2006 Final	FY 2007 Joint Resolution	FY 2008 President's Budget Request	FY 2008 Coalition Request
CDC DASH - HIV Prevention Education	$42.5 m (- $4.52 m)	$42.09 m (- $0.41 m)	$42.09 m (+$0 m)	$42.09 m (+$0 m)	$66.64 m (+ $24.55 m)
Minority HIV/ AIDS Initiative (across multiple programs)	$398.9 m (- $5.05 m)	$398.9 m (- $4 m)	$399.2 m (+$.3 m)	$398.2 m (-$1 m)	$610 m (+ $210.8 m)
HUD: HOPWA	$281.8 m (- $13.1 m)	$286.1 m (+ $4.3 m)	$286.1 m (+$0 m)	$300 m (+$13.9 m)	$454 m (+$167.9 m)
NIH[3]	$28.49 b (+ $830 m)	$28.35 b (- $ 45 m)	$28.93 b (+ $619.5 m)	$28.62 b (-$310 m)	$32.83 b (+ $1.65 b)
AIDS Research	$2.92 b (+ $75 m)	$2.903 b (- $17 m)	$2.903 b (+$0 m)	$2.905 b (+$2 m)	$3.2 b (+$300 m)
ACF: Abandoned Infants Assistance	$12.05 m (+ $0 m)	$11.84 m (- $0.21 m)	$11.84 m (+$0 m)	$11.84 m (+$0 m)	$20 m (+$8.16 m)
ACF: Community-Based Abstinence Education	$104.5 m (+ $31.5 m)	$113 m (+ $8.5 m)	$113 m (+ $0 m)	$141 m (+$28 m)	$0 m (- $113 m)
SAMHSA: Center for Substance Abuse Treatment	$422.5 m (+ $3.3 m)	$398.95 m (- $23.55 m)	$399 m (+ $0 m)	$352 m (-$47 m)	$410.0 m (+$11.1 m)
Substance Abuse Block Grant	$1,776 m (- $4 m)	$1,758.6 m (- $17.4 m)	$1,758.6 m (+$0 m)	$1,758.6 m (+$0 m)	$1,858.6 m (+$100 m)
SAMHSA: Center for Substance Abuse Prevention	$198.7 m (+ $0.3 m)	$192.9 m (- $5.8 m)	$193 m (+$0 m)	$156 m (-$36 m)	$210 m (+$17.1 m)
SAMHSA: Center for Mental Health Services (CMHS)	$901.3 m (+ $38.9 m)	$883.2 m (- $17.05 m)	$883 m (-$.2 m)	$807 m (-$76 m)	$959.3 m (+$75.1 m)
Subset of CMHS: Mental Health Block Grant	[$432.7 m] [(- $2.1 m)]	[$428.65 m] (- $4.05 m)	[$428.47 m] (- $.18 m)	[$428 m] (+$0 m)	[$460.7 m] [(+$32.3 m)]

[3] This refers to the NIH Discretionary Budget Authority as defined by the Administration

Source: AIDS Budget and Appropriations Coalition, which includes AIDS Action Council of Washington, DC.

ing birth to a healthy, uninfected baby, Bates says.

"He didn't know that an HIV-positive woman could have a healthy baby, so he had a tear in his eye," she says.

While SCDHEC officials say they believe about everyone on the ADAP waiting list is receiving medical care and treatment, their medication typically comes from pharmaceutical assistance programs.

These require case managers to spend about 90 percent of their time filling out paperwork to obtain a month-by-month eligibility for clients, Bates says.

Also, since Ryan White funding for care providers also is woefully under-funded, one of the major providers in Charleston, the Medical University of South Carolina, had stopped accepting new, uninsured patients as of March 2007,

Global HIV/AIDS Programs

PROGRAM	FY 2005 Final	FY 2006 Final	FY 2007 Joint Resolution	FY 2008 President's Budget Request	FY 2008 Coalition Request
Foreign Operations Portfolio					
HIV/AIDS in Child Survival and other accounts	$400 m (- $166 m)	$400 m (+ $0 m)	$373 m (includes $346m from Child Survival and Health) (- $27 m)	$346 m (includes $314m from Child Survival and Health) (- $27 m)	$692 m (+ $319 m)
Global HIV/AIDS Initiative (15 focus countries)	$1.374 b (+ $489.6 m)	$1.777 b (+ $400 m)	$2.870 b (+ $1.093 b)	$4.150 b (+ $1.28 b)	$5.1 b (+ $2.13 b)
Global Fund	$248 m (- $202 m)	$450 m (+ $302 m)	$624 m (+ $174 m)	----	$1.0 b (+ $376 m)
TB	$90 m (+ $90 m)	$220 m (+ $130 m)	$79 m (- $141 m)	$90 m (includes $79.4m from Child Survival and Health) (+ $11 m)	$400 m[4] (+ $321 m)
Malaria	$80 m (+ $80 m)	$100 m (+ $20 m)	$248 m (+ $148 m)	$388 m (includes $300m for PMI and $88m for non-focus countries) (+ $140 m)	$440 m (+ $192 m)
Labor/HHS Portfolio and Total					
Global Fund	$100 m (+ $0)	$99 m (- $1.0 m)	$99 m (+ $0 m)	$300 m (+ $201 m)	$300 m (+ $201 m)
CDC Global AIDS Program	$135 m (- $158 m)	$122 m (- $13 m)	$123 m (+ $1.0 m)	$121 m (- $2.0 m)	$121 m (+ $2.0 m)
Total	$2.4 b (+ $ 0.9 b)	$3.1 b (+ $0.7 b)	$4.4 b (+ $1.3 b)	$5.4 b (+ $1.0 b)	$8.09 b (+ $3.69 b)

[4] $350 million is also requested for TB as part of the Labor/HHS portfolio for research. This makes the TB funding request for FY 2008 a total of $750 million.

according to SCDHEC. The other main provider, the University of South Carolina—Department of Medicine has had a shortfall for most of the year to cover laboratory tests and other standard-of-care services.

But even states that have provided millions to their ADAP programs will soon see waiting lists and other problems if federal funding remains flat, as it has in the past year, Arnold says.

State ADAPs have put up with several years of near-flat funding from the federal government, and so the money that was released on April 1, 2007, will not go very far, Arnold says.

"We went to the House floor and Senate twice, asking for emergency supplementals, but both failed," Arnold says.

Lack of interest on the Hill was due to budget fights toward the end of last year, and the anticipation of major political changes in Congress, which resulted in the previous leadership prohibiting all amendments and emergency funding through the end of 2006, Arnold explains.

Arnold and others are working with Congress to get more money in the FY08 budget, but the outcome is uncertain.

"I'm talking to several offices about it now to get emergency money because in the FY08 budget, the only ADAP increase is a $25 million increase from the president's budget," Arnold says. "But the president's budget is dead on arrival, and $25 million won't help us — it's about 10 percent of the $232 million we actually need."

President Bush's FY08 budget request is inadequate and shortsighted, particularly on the prevention side, says Ronald Johnson, deputy director of AIDS Action Council of Washington, DC.

The biggest increase in the president's budget is $93 million for HIV prevention and surveillance, but that entire amount is earmarked for purchases of rapid HIV testing kits, Johnson says. (*See AIDS budget chart, p. 51.*)

"The overall prevention needs are huge, and they're not addressed by the president's budget request," Johnson says.

Another area in which the president requested a substantial increase — greater than the increase requested for ADAP — is in community-based abstinence education.

The $28 million proposed increase would bring abstinence-only funding up to $141 million, and this request was made while a variety of other programs, including research spending, substance abuse treatment, and mental health services would be cut by more than $460 million.

"We feel the abstinence-only education program needs to be completely defunded," Johnson says. "There are studies that show these programs are not effective, and so the money could be far more effectively spent in other areas."

The president's substantial increases to abstinence-only programs were supposed to be accompanied by new and peer-reviewed research into whether these programs work. The only study completed is being held by the U.S. Health Resources and Services Administration (HRSA) and has not been released yet, Johnson notes.

"Almost as we speak, there are meetings going on with staff about this," Johnson says. "We have had a full range of Hill visits around appropriations, and funding for abstinence-only programs is very definitely on the list."

Speaker of the House Nancy Pelosi has indicated her interest in seeking new funds for the Ryan White Care Act, and there are new Democratic members of Congress who have health care as a priority, Clary says.

"So we're optimistic we'll see increases," Clary says.

The reauthorized Ryan White Care Act ended up as a compromise that will send a little extra money to struggling Southern states such as South Carolina while not causing urban Northern states like New York and New Jersey to lose more than 5 percent of their current funding, Clary says.

"Now they'll count HIV cases and not just AIDS cases, so those with emerging epidemics will benefit from this," he says. "Nobody ultimately was very happy, but it looks like what you'd reach if you compromised among groups, and it was based on the assumption of very little increased funding." ■

Adherence Strategies

An effective, inexpensive way to measure adherence

Telephone calls worked as well as home visits

A Connecticut research group wanted to see if they could develop a way to measure HIV medication adherence both cost-effectively and accurately.

The result is a study showing that unannounced telephone calls to HIV patients, in which patients are asked to count their pills, works economically and is very accurate.[1]

"We've done adherence work in the past and have a substantial problem measuring and monitoring medication adherence," says Seth Kalichman, PhD, a professor of psychology at the University of Connecticut in Storrs, CT.

"That's a theme," Kalichman adds. "A lot of researchers and clinicians have the same problem because electronic monitoring is cumbersome and has significant problems we can't get past."

One alternative was developed by a San Francisco, CA, researcher who used unannounced visits to HIV patients to count their pills. This proved very reliable.[2]

"The issue we faced was that because we do our research work in Atlanta, our people are very spread out," Kalichman says.

Visiting participants to count pills is an expensive method for ascertaining adherence in just about any city except San Francisco, where all of the participants were in one geographical area and many lived in the same collection of buildings, he notes.

"We changed the procedure to call people and to have them count the pills over the telephone," Kalichman says.

The resulting study shows that the unannounced telephone calls work as well as the unannounced visits, he adds.

"There were some errors, but they were never more than a couple of pills off," Kalichman says.

Investigators combined both unannounced

telephone calls to have participants count their pills while on the phone with a follow-up visit at home where study staff counted their pills as well. The result was 99 percent concordance, Kalichman says.

The high concordance surprised Kalichman: "I was concerned it wouldn't turn out so well, but when data were all entered, the mistakes turned out to be trivial," he says.

Investigators studying medication adherence could use this method instead of the more common and less accurate method of using self-reported adherence, Kalichman suggests.

"It's stigmatizing to miss your medications, and everybody knows about adherence and how it's not good to miss your antiretrovirals," he says. "So there is motivation for bias among patients, so they won't look bad to doctors."

But even when patients are honest with self-reporting, it's difficult for them to be highly accurate, Kalichman says.

"We're asking someone to remember something they've forgotten," he says. "When people report 100 percent adherence we tend to believe that in our research, and when people say they aren't taking any pills at all, we tend to believe that."

However, it's difficult for everyone else to recall how well they took their prescriptions more than for a few days at a time, Kalichman says.

Then there's the method of having patients bring in their pills to clinic appointments, and that monitoring strategy has two major problems, he says.

"One is that people don't bring everything they have, and so they'll say they have a bottle in their bathroom or they've forgotten their pill box," Kalichman says. "Having all of the pills available is critical for an accurate count, and it's difficult to achieve in an office visit."

Then there's the second problem of pill dumping in which patients won't bring all of their pills to the office because they don't want to have the clinicians see how many doses they've missed, he adds.

Kalichman says it would be very difficult for patients to engage in pill dumping during the unannounced telephone calls, because there isn't much time for someone to add up doses and numbers and come up with a lower number of pills to report than what they have in front of them.

For the research study, the telephone interviewers were trained to provide no judgments when participants gave their pill numbers, Kalichman says.

But if telephone pill-counting were used for the purposes of both monitoring and improving medication adherence among a clinic's patients, it could provide an instant opportunity for counseling, he suggests.

"With a doctor's office you could obtain the adherence rate immediately by plugging numbers into the database, which would tell you how many pills the patient had last time and how many were dispensed," Kalichman explains. "If the adherence rate was less than 95 percent, then the adherence nurse could say, 'John, I can see from your pill count that you missed a few doses, can we talk about that? Let's problem-solve and see what you could do differently for the next time.'"

For the study, 77 HIV-positive men and women in Atlanta received 13 monthly unannounced phone assessments and one unannounced home visit, but participants were not told the home visit would be shortly after the telephone visit.[1]

The study's logistics required home visitors to rely on dispatchers and global position systems (GPS) so they could get to a home within 20-30 minutes. Since the average telephone pill-counting session lasted 15 to 20 minutes, this meant the home visitors typically would arrive within five minutes of the person hanging up the telephone, Kalichman explains.

There were always three cars in the field, each assigned to a geographical area, and as soon as a telephone caller found someone at home, he or she would signal the dispatcher who would immediately send the home visitor to that residence, he adds.

"So the validation study was carefully planned and well-organized," he says.

Telephone pill-counting interviewers typically had to call several times before finding someone at home, but this wasted only seconds of their time, Kalichman says.

Also, for participants who didn't have reliable telephone service, the study provided them with free cell phones that had a service that could only be accessed by the trial staff. The phones couldn't be used to call out, only to receive calls, and the participants weren't given its number, he explains.

"We experienced some loss of phones, so it wasn't perfect," Kalichman notes.

But the key to the telephone pill-counting intervention is that it is far less expensive and just as accurate as home visits for pill counting, he adds.

Home visits, for instance, cost 44 cents per mile just for the driving expenses, and the home visitors drove eight to 10 miles to a home, on

average, he says.

"And we had them visit homes when we knew somebody was going to be home, but what if you were to show up and nobody's there?" he says.

"The cost of unannounced home visits is cost prohibitive," Kalichman says.

In an HIV clinic, an adherence nurse could make the pill-counting phone calls, spending maybe 10 to 20 minutes on each phone call in which the patient was reached, he says.

"My real hope is this becomes the new thing and people find it as useful as we found it," Kalichman says.

"There are so few options for measuring adherence for research, and I think there are more people who will find it a good idea," he adds. "Our aim is to give it away; we're eager to share the protocol and database with anyone who is interested in using it." ■

[*Editor's note: For more information about the telephone pill-counting study, contact Seth Kalichman, PhD, at the email address: seth.k@uconn.edu.*]

References:

1. Kalichman SC, Amaral CM, Stearns H, et al. Adherence to antiretroviral therapy assessed by unannounced pill counts conducted by telephone. *J Gen Intern Med*. 2007;10:e-pub.

2. Bangsberg DR, Hecht FM, Charlebols ED, et al. Comparing objective measures of adherence to HIV antiretroviral therapy: electronic medication monitors and unannounced pill counts. *AIDS Behav*. 2001;5:275-281.

Resistance patterns analyzed in regional study of HIV patterns

Genotype test is routine for ART-naïve patients

A Midwestern clinic showed a high prevalence of primary antiretroviral resistance among HIV patients from 2003 to 2005, suggesting that it's worth the cost to obtain genotypes on new patients, a study suggests.[1]

"I think one of the reasons we thought the study was relevant is because we do have a fair mix of heterosexual transmission and men who have sex with men (MSM) and females in our clinic," says Jessica R. Grubb, MD, an instructor of medicine at Washington University in St. Louis, MO.

"The different geographical locations may have different patterns of resistance, and ours are limited to what we have at a university clinic," Grubb notes. "But it may also reflect other parts of the country that don't have high immigration rates."

In the last few years, most of the university clinic's treatment-naïve HIV patients receive genotypes, which follows the recent trend among HIV clinicians, Grubb says.

"Unless there's some drastic reason, we'll wait for the genotype," Grubb says. "So at our clinic, usually we'll obtain a genotype at the patient's first visit, and then when we see the patient again we'll make a decision for their care based on the guidelines of standard therapy and the genotype profile."

The genotype adds to the whole picture, giving clinicians an idea of which regimens to avoid, she adds.

Investigators conducted a retrospective analysis of all genotypes performed on the treatment-naïve patients seen between 2003 and 2005, and they found that 7 percent of the subjects had a K103 mutation, Grubb says.

"If a patient has a K103 mutation, you would not want to start him on a Sustiva-based regimen," Grubb notes. "So many people are started on Sustiva these days, it's good to know if they're going to be resistant against it."

TAM or nonnucleoside reverse transcriptase inhibitor (NNRTI) mutations were found in 5 percent of patients, she adds.

"That's more difficult to characterize because you'd have to make that determination on an individual basis," Grubb says. "But it would be helpful to know what the mutation is, and then you could have a more goal-directed decision on antiretrovirals."

Patients who have antiretroviral resistance before they start therapy should be given reinforcement counseling about medication adherence, Grubb suggests.

"They already may have a reduced response to some medications, and they have limited their options already, even before they started their treatment," she says.

At the university clinic, these patients meet with a clinician for an hour of HIV education, Grubb says.

"A nurse practitioner sits down with them and reviews all educational questions and compliance issues," she says. "And we have case managers and social workers who assist." ■

Reference

1. Grubb J, Singhatiraj E, Mondy K, et al. Patterns of primary antiretroviral resistance in antiretroviral-naive HIV-1 infected individuals. Presented at the Infectious Diseases Society of America 44th Annual Conference, held Oct. 12-15, 2006, in Toronto, Ontario. Abstract: 977.

FDA Notifications

FDA tentatively approves generic efavirenz

On March 26, 2007, FDA granted tentative approval for a generic drug formulation of efavirenz tablets (600 mg), manufactured by Strides Acrolab Ltd., Bangalore, India, under the expedited review provisions created by FDA for the President's Emergency Plan for AIDS Relief (PEPFAR).

The tentatively approved product is a generic version of the nonnucleoside reverse transcriptase inhibitor (NNRTI), Sustiva Tablets, 600 mg, for use in combination with other antiretroviral agents in the treatment of HIV infection. Sustiva, manufactured by Bristol Myers Squibb Co., is currently subject to patent protection.

FDA's tentative approval of this product means that although existing patents and/or exclusivities prevent marketing of this product in the United States, the product has been shown to meet all of FDA's safety, efficacy, and manufacturing quality standards required for marketing in the U.S., and thus qualifies for consideration for purchase under the PEPFAR program for use in qualifying countries.

A complete list of approved and tentatively approved antiretroviral drugs associated with PEPFAR is available at http://www.fda.gov/oia/pepfar.htm. ■

FDA tentatively approves generic lamivudine

The FDA granted tentative approval on March 19, 2007 for a generic formulation of lamivudine tablets (150 mg), manufactured by Matrix Laboratories, Inc., of Hyderabad, India, under expedited review provisions developed for the President's Emergency Plan for AIDS Relief (PEPFAR). Final approval cannot be granted at this time because the reference drug product, Epivir Tablets, a product of GlaxoSmithKline, is currently subject to patent protection.

Lamivudine is indicated for use in combination with other antiretroviral agents for the treatment of HIV infection. ■

FDA grants tentative approval to two ART drugs under expedited review

On March 13, 2007, FDA granted tentative approval for two applications for antiretroviral drugs products made by Strides Acrolab Ltd., Bangalore, India, under the expedited review provisions created by FDA for the President's Emergency Plan for AIDS Relief (PEPFAR).

The first is a fixed dose combination of stavudine/lamivudine (40 mg/150 mg) tablets, co-packaged with nevirapine tablets (200 mg) for use in HIV-1 treatment.

The second is a fixed dose combination of stavudine/lamivudine (40 mg/150 mg) tablets for use in HIV-1 treatment in combination with other antiretroviral drugs.

These products represent drug combinations that can significantly decrease pill burden and could result in improved compliance for HIV-infected individuals.

As with all generic applications, FDA conducts an on-site inspection of each manufacturing facility and of the facilities performing the bioequivalence studies prior to granting approval or tentative approval to these applications to evaluate the ability of the manufacturer to produce a quality product and to assess the quality of the bioequivalence data supporting the application. ■

FDA issues public health advisory about ESAs

The FDA has issued a public health advisory outlining new safety information, including revised product labeling about erythropoiesis-stimulating agents (ESAs), widely used drugs for the treatment of anemia in a variety of conditions, including anemia due to zidovudine therapy in HIV patients.

The drugs affected by the safety update are darbepoetin alfa (Aranesp) and epoetin alfa (Epogen and Procrit). (ESAs are genetically engineered forms of the naturally occurring human protein, erythropoietin. Natural erythropoietin is made by the kidney and increases the number of red blood cells).

FDA and the manufacturer of these products have agreed on revised product labeling that includes updated warnings, a new black box warning, and modifications to the dosing instructions. The new black box warning advises physicians to monitor red blood cell levels (hemoglobin) and to adjust the ESA dose to maintain the

lowest hemoglobin level needed to avoid the need for blood transfusions. Physicians and patients should carefully weigh the risks of ESAs against transfusion risks.

Recently completed studies describe an increased risk of death, blood clots, strokes, and heart attacks in patients with chronic kidney failure when ESAs were given at higher than recommended doses. In other studies, more rapid tumor growth occurred in patients with head and neck cancer who received these higher doses.

In studies where ESAs were given at recommended doses, an increased risk of death was reported in patients with cancer who were not receiving chemotherapy and an increased risk of blood clots was observed in patients following orthopedic surgery.

"The agency is in the process of re-evaluating the safety of Aranesp, Epogen, and Procrit on the basis of the results of recent clinical studies," said Steven Galson, MD, director of FDA's Center for Drug Evaluation and Research. "The new studies provide significant new information for both prescribers and patients, and the new information applies to all ESAs, which share the same mechanism of action. The safety of these products will be discussed when the Oncologic Drugs Advisory Committee (ODAC) meets in May and further revisions to the labeling may occur after that meeting."

Safety concerns from earlier ESA studies were discussed during a 2004 meeting of the ODAC. Product labeling was previously revised in 1997, 2004, and 2005 to reflect new safety information.

The three drugs are approved to treat anemia in patients with chronic kidney failure and in patients with cancer whose anemia is caused by chemotherapy. Epogen and Procrit are approved for patients scheduled for major surgery to reduce potential blood transfusions and for the treatment of anemia due to zidovudine therapy in HIV patients. ESAs are not approved to treat the symptoms of anemia – including fatigue – in cancer patients, surgical patients, or those with HIV.

All three drugs are manufactured by Amgen, Inc., of Thousand Oaks, California. Procrit is marketed and distributed by Ortho Biotech LP, a subsidiary of Johnson & Johnson. ■

FDA grants approval for generic didanosine for oral solution

On March 8, 2007, the FDA granted approval for generic didanosine for oral solution (Pediatric Powder), 10 mg/mL, packaged in 2-gram and 4-gram containers, manufactured by Aurobindo Pharma Limited, of Hyderabad, India, allowing marketing in United States.

This is a generic version of the already FDA-approved Videx Pediatric Powder for Oral Solution, 10 mg/mL, manufactured by Bristol Myers Squibb.

FDA granted tentative approval for this product on Oct. 5, 2006, permitting purchase of this generic formulation of didanosine by the President's Emergency Plan for AIDS Relief, or PEPFAR. A tentative approval means that a drug product has met FDA's safety, efficacy and quality standards, but is ineligible for marketing in the U.S. until patent and/or exclusivity restrictions expire.

However, because patents and exclusivity for Videx For Oral Solution have expired (see FDA's publication titled Approved Drug Products with Therapeutic Equivalence Evaluations, also known as the "Orange Book"), the generic formulation can be granted approval, allowing it to be marketed in the United States.

Didanosine for oral solution is approved for use in combination with other antiretroviral agents in the treatment of HIV infection.

The PEPFAR program was created to provide government funding to treat, and reduce transmission of HIV in 15 focus countries, mostly in Sub-Saharan Africa, but including Haiti, Guyana, and Vietnam.

Because drugs that do not conform to standards of potency, purity, stability, or good manufacturing procedures may pose a threat by increasing chance of substandard performance, treatment failure, and emergence of resistant virus, PEPFAR limits funding to acquire only products that have undergone stringent regulatory review.

While FDA does not approve drugs for use in other countries, the agency has expedited review procedures in place (and conducts inspections of the manufacture and testing sites) to determine whether the drug products meet FDA safety, efficacy, and manufacturing quality standards, thus making them eligible for purchase using PEPFAR funds.

When the determination is made that a product meets the required criteria and standards, FDA may issue a "tentative approval," even though the product cannot yet be marketed in the U.S. because of legal restrictions related to existing exclusivity rights held by the original drug manufacturer. Once marketing exclusivities expire, FDA can grant marketing approval of the generic formulation in the U.S. market.

Since the time didanosine for oral solution received a tentative approval in October, 2006, allowing it to be purchased through PEPFAR (for use in PEPFAR-affected countries), expiration of patents has resulted in an approval that now allows marketing of this generic formulation of didanosine for oral solution in the United States. ■

Posaconazole for Azole-Refractory Candidiasis in Patients with HIV Infection

By Dean L. Winslow, MD, FACP

Chief, Division of AIDS Medicine, Santa Clara Valley Medical Center; Clinical Professor of Medicine, Stanford University School of Medicine

Dr. Winslow serves as a consultant to Siemens Diagnostics and is on the speakers bureaus of Boehringer-Ingelheim and GSK.

This article originally appeared in the April 2007 issue of Infectious Disease Alert. *It was edited by Stan Deresinski, MD, FACP, and peer reviewed by Connie Price, MD. Dr. Deresinski is Clinical Professor of Medicine, Stanford University; Associate Chief of Infectious Diseases, Santa Clara Valley Medical Center, and Dr. Price is Assistant Professor, University of Colorado School of Medicine. Dr. Deresinski serves on the speaker's bureau for Merck, Pharmacia, GlaxoSmithKline, Pfizer, Bayer, and Wyeth, and does research for Merck. Dr. Price reports no financial relationship relevant to this field of study.*

Synopsis: *176 HIV-infected patients with either oropharyngeal candidiasis (OPC) or esophageal candidiasis (EC) who had not responded to standard courses of either fluconazole or itraconazole were treated with posaconazole. 132 (75%) of patients achieved a clinical response. The 2 regimens tested were generally well-tolerated with only 8 patients (4%) discontinuing treatment due to a treatment-related adverse event.*

Source: Skiest DJ, et al. Posaconazole for the treatment of azole-refractory oropharyngeal and esophageal candidiasis in subjects with HIV infection. *Clin Infect Dis* 2007;44:607-614.

This paper reports the results of an important multinational trial which evaluated the use of 2 different regimens of posaconazole in the treatment of OPC or EC, which had been refractory to either fluconazole or itraconazole. The 2 regimens studied were oral posaconazole 400 mg BID for 3 days followed by 400 mg once daily for 25 days or posaconazole 400 mg BID for the entire initial 28 days. After 28 days on the induction regimen patients who had clinically responded could receive posaconazole 400 mg BID 3 times/week as suppressive therapy for up to 3 months.

Both dosing regimens were equally effective. Posaconazole was active against both Candida albicans and other Candida species. The posaconazole regimens were also effective in patients from whom Candida isolates demonstrated in vitro resistance to either or both fluconazole and itraconazole.

■ COMMENTARY

Despite the significant reduction in the prevalence of severe and refractory mucosal candidiasis in HIV patients due to the use of HAART, management of OPC and EC refractory to older azoles remains a relatively common clinical problem. While parenteral echinocandins and amphotericin B preparations are extremely useful in acute treatment of esophageal candidiasis, they are a very heavy hammer with which to treat recurrent OPC. As a result we are often left with a number of unsatisfactory measures to try to manage OPC, which is refractory to fluconazole or itraconazole. Oral voriconazole is often ineffective due to cross-resistance with the older azoles. Anecdotally some clinicians have found success with pushing the doses of older azoles, but I have never been impressed that this works for long and is often complicated by hepatotoxicity and significant drug interactions in the case of itraconazole. Nystatin oral suspension has seldom been effective in my hands nor has the use of "homebrew" oral suspensions of amphotericin B, which I have occasionally tried out of desperation in the past.

Posaconazole is a broad spectrum antifungal triazole with in vitro activity against many molds as well as most fluconazole and itraconazole resistant yeasts. Posaconazole received FDA market clearance in the fall of 2006.

These results are encouraging and show that posaconazole is a useful addition to our therapeutic

COMING IN FUTURE MONTHS

■ Study shows effective adherence strategy: using pill box organizers

■ Patient reported outcomes is feasible tool

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armamentarium for the treatment of azole-refractory and azole-resistant OPC and EC. However, the trial only followed patients out for a few months. As we know from our experience in the past with treating recurrent mucosal candidiasis with the older azoles in the setting of HIV infection, development of resistance to posaconazole in vivo is likely to occur. Reversal of the underlying HIV-related immunosuppression is ultimately the best way to suppress all opportunistic infections. ■

CE/CME *questions*

14. Researchers studied the accuracy of monitoring HIV adherence through unannounced telephone calls for the purpose of having clients count pills, and they compared that method with unannounced home visits in which an HIV clinician or staff would count pills for the patient. What was the level of concordance between the two methods?
A. 99 percent
B. 87 percent
C. 72 percent
D. 64 percent

15. A recent Midwestern study found that seven percent of HIV treatment-naïve patients had a K103 mutation, which suggests resistance to an antiretroviral regimen containing which drug?
A. Indinavir
B. Efavirenz
C. Ritonavir
D. Nelfinavir

16. As states wait for additional funding under the Ryan White Care Act, the list of patients waiting to receive medications under the AIDS Drug Assistance Program (ADAP) is growing. Which state is now ranked 10th for new cases of HIV infection?
A. Georgia
B. South Carolina
C. Michigan
D. California

17. Oral voriconazole is often ineffective due to cross-resistance with the older azoles.
A. True
B. False

Answers: 14.(a) 15. (b) 16. (b) 17. (a)

CORRECTION: Last month's issue was incorrectly numbered as Volume 21, No. 4. It should have read Volume 22, No. 4.

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CE/CME objectives

The CE/CME objectives for *AIDS Alert*, are to help physicians and nurses be able to:
• Identify the particular clinical, legal, or scientific issues related to AIDS patient care;
• Describe how those issues affect nurses, physicians, hospitals, and clinics;
• Cite practical solutions to the problems associated with those issues.

Physicians and nurses participate in this medical education program by reading the issue, using the provided references for further research, and studying the questions at the end of the issue.

Participants should select what they believe to be the correct answers, then refer to the list of correct answers to test their knowledge. To clarify confusion surrounding any question answered incorrectly, please consult the source material.

After competing this activity at the end of each semester, you must complete the evaluation form provided and return it in the reply envelope provided to receive a letter of credit. When your evaluation is received, a letter of credit will be mailed to you.