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formerly FACULTY NOTES

Summer 2004 • Vol. 16, No. 3

Protease inhibitor boosting is complex, requires thorough knowledge of interactions

Paul Monier, MD

Most clinicians who treat HIV-infected individuals are familiar with the concept of protease inhibitor (PI) boosting. Using a cytochrome P-450 (CYP450) inhibitor to impede the metabolism of some protease inhibitors, supratherapeutic levels of drug can be achieved, affording several advantages to the patient.

Usually ritonavir, a potent inhibitor of CYP450, is used when employing this strategy. Ritonavir blocks CYP3A4 enzymes in both the gut wall and the liver, as well as inhibits P-glycoprotein, all of which lead to higher drug levels, translating clinically into decreased pill counts, less frequent dosing, and lack of food requirements when using other available PIs. In addition, clinical experience suggests that “boosted PI-based” regimens provide a high genetic barrier to resistance, decreasing the likelihood of the development of PI class resistance should treatment failure occur.

The impact of low dose ritonavir on drug levels varies among the PIs. Little is gained when combining ritonavir with nelfinavir, while other agents such as lopinavir are dramatically affected.

While initially used as a salvage strategy in which clinicians hoped to overcome resistance in patients failing HAART, using boosted PIs has become routine as a first line strategy for the reasons listed above. A newer approach using two PIs combined with low dose ritonavir (double boosted PI) has evolved and is typically employed in patients with broad resistance, especially to nucleoside (NRTI) and non-nucleoside (NNRTI) reverse transcrip-

tase inhibitors or in those who are reverse transcriptase inhibitor (RTI) intolerant. When using two PIs together, the clinician must be aware of the complex pharmacokinetic interactions at play so that the desired advantages are realized without loss of efficacy.

Although more recently promoted for use as a first-line agent to treat antiretroviral naïve patients, lopinavir/ritonavir (LPV/r) has been frequently used in salvage settings, resulting in more available data regarding its interactions with other PIs. LPV/r combined with saquinavir (SQV) is one of the more studied regimens employing the double boosted

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Dentistry

What factors influence the use of HIV dental services?

Kishore Shetty, DDS, DDPH

Since the start of the human immunodeficiency virus (HIV) epidemic, oral lesions have been identified in infected populations.^{1,2}

More than one-third of people who are seropositive for the virus and approximately 90 percent of the people with acquired immunodeficiency syndrome (AIDS) develop HIV-associated oral lesions during the course of the disease. Access to regular dental care is essential to

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Medicine

Supratherapeutic levels of drug can be achieved by PI boosting

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PI approach. Together, these two agents exhibit synergistic activity against HIV in vitro. These findings have corresponded to clinical efficacy in several trials, most often in heavily pretreated patients. The recommended dosage is SQV 1000 mg combined with LPV/r 400/100 mg given twice daily.

Combining LPV/r with IDV intuitively would yield similar results as the above regimen. However, while these two agents also exhibit synergistic anti-HIV activity in vitro, data regarding pharmacokinetic properties has been inconsistent. A recent study evaluated the efficacy of this combination in 28 HIV-positive patients with limited RTI options. Patients were treated with IDV 800 mg and LPV/r 400/100 mg twice daily and at 24 weeks exhibited a median decline in HIV viral load of 3.3 log₁₀ copies/ml, suggesting good antiviral activity. The primary limiting factor in this study was tolerance, as 29% of the study subjects dropped out citing adverse effects.

LPV/r combined with APV involves a complex interaction leading to a significantly decreased level of LPV/r as well as a modest decrease in APV concentration. Several studies have suggested that increasing the dosage of LPV/r or adding additional RTV to standard dosages may compensate for the above findings. Recommended dosages include APV 750 mg combined with LPV/r 533/133 mg administered twice daily or with LPV/r

400/100 mg plus an additional RTV 100 mg given twice daily. This combination should only be used when absolutely necessary based on the presence of resistance mutations or antiretroviral intolerance. The availability of fos-amprenavir (fAMP), the pro-drug of amprenavir, characterized by favorable dosing properties and improved tolerability, heightened interest in using it combined with LPV/r in treatment experienced patients. Unfortunately, the limited data that is currently available exhibits that marked reductions occur in

Double-boosted PI regimens appear relatively safe but the effects of long-term usage are not known.

levels of both agents, raising concerns over the usefulness of this combination. Until more pharmacokinetic studies are available, this regimen should be avoided unless no other options exist.

Nelfinavir (NFV) decreases LPV/r concentrations, necessitating an increased dosage of the latter to 533/133 mg twice daily with standard NFV dosing. This combination would likely be employed only in unusual circumstances.

Another newer PI, atazanvir (ATV), boasting improved dosing characteristics, has raised interest in its use in double boosted

PI regimens; however, there is no data available evaluating its use in combination with LPV/r.

Attributes of the newer PIs, namely ATV and fAMP, including improved dosing characteristics in terms of pill counts and frequency, better tolerability, and unique resistance profiles, make them ideal candidates for use in a double PI regimen. While ATV appears destined for use primarily as a first line agent, it has performed well in studies involving treatment experienced patients. Although there is a paucity of data describing interactions between ATV and other PIs, an interesting interaction occurs between ATV and SQV when combined with RTV. When these agents are co-administered, SQV levels are significantly increased beyond what would be expected when administered with RTV alone. In addition, RTV levels are modestly increased while ATV concentration remains stable. The mechanism for higher SQV levels is unclear but is likely contributed to by multiple factors, including CYP450 inhibition and P-gp inhibition. In one study, heavily pre-treated HIV-infected patients were administered ATV 400 mg and SQV 1200 mg once daily. This strategy was associated with poor therapeutic responses, owing to suboptimal dosages of SQV and the lack of an additional boosting effect of RTV. There are no official recommendations for using this combination, but a logical dosage recommendation would include SQV 1600 mg, ATV 300 mg, and



RTV 100 mg given together once daily.

The pharmacokinetic interactions between fAMP and LPV/r have been discussed earlier. Using fAMP in combination with SQV has been investigated. Together, these two agents exhibit synergistic activity against HIV in vitro. However, much like the effects seen when combining APV and LPV/r, a complex interaction occurs in which the end result is a decreased concentration of SQV (up to 20%) and modest decreases in fAMP and RTV levels as well. These effects appear to be overcome by using additional RTV. Although additional data would be welcome regarding optimal dosing, a reasonable strategy would include SQV 1000 mg, fAMP 700 mg, and RTV 200 mg dosed twice daily. As with other similar regimens, it seems prudent to use this combination only when no better options exist.

Combining PIs in various combinations will become more common in clinical practice as patients become more treatment experienced. Complex drug interactions between PIs exist and a thorough understanding is necessary to successfully employ such a strategy. While to date, using a "double boosted PI regimen" appears relatively safe, the effects of long-term usage are not known. Despite the potential for toxicity, this type of regimen is generally reserved for patients with multidrug resistance, and any benefit derived would likely outweigh concerns related to long-term adverse effects. Therapeutic drug monitoring (TDM) may prove useful in the future to monitor drug levels in patients taking these types of regimens.

Tolerance is another issue

that may be a limiting factor in terms of successfully treating patients with these complex combinations. Nevertheless, double boosted PIs will continue to evolve as an important strategy to treat HIV-infected individuals, especially in the setting of RTI resistance and intolerance. ❖

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Earn your CEs at Delta AETC's HIV Clinical Preceptorships

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A half-day course for practicing pharmacists with curriculum developed by recognized experts in the field of HIV treatment. The course takes place at Xavier University of Louisiana College of Pharmacy at New Orleans. This program is held three times a year in New Orleans.

Individual clinical preceptorships are available in Mississippi and Arkansas upon request. In Mississippi, contact Cheryl Hamill at 601-984-5542. In Arkansas, contact Derrick Newby at 870-535-3062.



Dentistry

Dental care is far from universal among HIV-infected patients

HIV dental services, from page 1

manage HIV-related oral disease, and dentists, as principal oral health diagnosticians, need to be aware of the special needs of HIV-infected patients and the therapies available.³⁻⁵

A number of factors influence the use of dental services by HIV-infected patients including dental insurance status, referral practices, availability of services, and the willingness of patients to seek care, and clinicians to deliver care.⁵⁻⁷ In a study by Fleishman et al. on the dental service use among HIV adults, 51 percent of the respondents reported one or more visits to a dentist, oral surgeon, or other professional dental health care provider at some point of time during the study period. Any dental service use was significantly more likely among more socioeconomically advantaged groups: whites, homosexual or bisexual men, those privately insured, those employed, and those with relatively high education and income. Those without medical insurance in the Fleishman study were significantly less likely to use dental care than were those with public insurance, but the difference between those with public and those with private insurance was not significant.⁸

HIV-infected people may have limited access to needed services for a number of reasons, including discrimination and inadequate social or health services.⁷ Cost of treatment not

covered by insurance has been commonly reported as a barrier to receiving needed dental care, even among HIV-infected people who receive state and federal entitlements. In one survey, HIV-infected adults reported that being unable to afford treatment was the most common reason for experiencing difficulty in obtaining dental care. HIV-infected adults without dental insurance were less likely than those with dental insurance to receive care.³ In certain metropolitan areas, free dental care is available to HIV-infected patients at selected specialty clinics, regardless of their dental status.⁹ However, HIV-infected people living in states that

**In one clinic,
female HIV patients
were more likely to seek
dental care only in
case of emergency.**

require reporting of AIDS but not HIV may be ineligible to receive certain federal entitlements that cover the cost of dental care. The lack of dental insurance continues to affect the extent of services that patients receive and their likelihood to seek dental care. HIV-infected people are more likely to lack dental insurance (75 percent) than are people in the general population (59 percent). Some patients who are

eligible for free dental care do not live close enough to specialty clinics to benefit from their services.¹⁰

Dentists have not been universally receptive to caring for persons with HIV.^{11, 12} Provider reluctance to treat HIV-infected people may affect patients' inability to receive care. HIV-infected adults are concerned that providers will refuse to treat them once they know of the patient's serostatus. National surveys of dentists' attitudes and practices concerning infectious diseases, conducted in 1986 and 1988, reported that only 21 percent and 31 percent of dentists, respectively, were willing to treat patients with AIDS; however more than 86 percent of respondents reported that they would refer these patients to public health clinics or hospitals. In a 1990 survey, 60 percent of general dentists in the US reported that they were willing to treat HIV-seropositive patients but not necessarily symptomatic HIV-infected patients or patients with AIDS.¹³

Part of this reluctance has been due to the fact that dentists have seen themselves at considerable risk of contracting the infection during patient treatment.¹⁴ The attitude of dentists may also result in less disclosure by HIV patients to their dentists. Perry et al found that only 53% of patients had informed their dentists of their infection, but 85% had told their physicians. Dentists also considered themselves to be more at risk from



stigma than other providers if they treat HIV patients.¹⁵ Younger dentists, dentists receiving continuing education courses on HIV/AIDS, or those who were experienced at treating HIV cases, were less reluctant to offer treatment to HIV patients.¹⁶ In a 1993 survey, 67 percent of dentists reported that they were willing to treat patients with AIDS even if a legitimate option for referral existed, however, 84 percent felt that it was their right to decide whether to accept an HIV patient for treatment.¹⁷

Since 1994, Title 3 of the Americans with Disabilities Act has effectively prevented several dental discrimination cases where the patients were refused treatment because the provider became aware of the patients HIV status. Better understanding of the ethical conflict between rights and interests, as well as improved communication and risk management (written document on advice given to patients) are essential strategies in eliminating HIV-related discrimination. The source of care is also another significant factor in health care utilization. Higher percentages of patients seek care at Veterans Administration (VA) hospitals and AIDS clinics which reflects the fact that, in designated clinics and at the VA, a more comprehensive one-stop shopping approach for managing HIV patients is possible.⁵

Dental care use is far from universal among persons with HIV. Barriers to dental care may be reduced by increasing dentist's awareness of the Americans with Disabilities Act, integrating training and education on infection control and HIV-associated

oral conditions with a better understanding of the dentist's role in providing care to HIV-infected people. Health care professionals have the responsibility to reduce fear and anxiety among patients associated with HIV, especially when they seek dental care.¹⁸ Measures are needed to ensure that more HIV patients receive regular dental care. One such measure to reduce disparity would be to provide coverage of dental care for Medicaid beneficiaries with HIV.¹⁹ Improving patient education on oral conditions that require treatment and expanding coverage of dental insurance for HIV-infected people can help in reducing some of the barriers.

Results of study at HIV Dental Clinic in New Orleans

The HIV Outpatient Dental Clinic at the Medical Center of Louisiana provides comprehensive oral care to more than 1,000 HIV-positive patients. In the past year, we evaluated the use of dental services such as examination, cleanings, fillings, extractions, crown and bridges, and dentures. Preliminary analysis showed significantly lower use of dental services in the female patient population. There was no difference in the dental emergency visit encounters among the white and black male patient population, however, the female patients in general were more likely to seek dental care only in case of emergency. This indicates that significant disparities exist in the use of several dental services and female HIV patients were less likely to receive advanced dental care, even after accounting for symptomatology.

Additional data are needed on factors that lead HIV-infected people to notice oral or dental conditions, to assess their severity, and decide to seek care. ♦

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National Warmline and PEPline provide clinicians with assistance in managing HIV and occupational exposures

Scenario 1: You are caring for a 49-year-old HIV+ man. He previously had been taking didanosine, stavudine, and zidovudine, but medications were discontinued because he developed pancreatitis. His antiretroviral regimen was changed to zidovudine, tenofovir, and nevirapine eight months ago. The viral load had been undetectable until last month, but now has increased to 8000 copies/mL. The patient's CD4+ count has remained stable between 340 and 390 cells/ μ L. He has serologic evidence of hepatitis C without LFT abnormalities. The ALT and AST are now twice the upper limit of normal and the serum cholesterol is 248. Numerous antiretroviral options seem viable and you would like further input.

Scenario 2: It is 6 pm and a concerned nurse approaches you because she thought the tip of a bloody 22-gauge needle might have stuck her. When she took off her glove, there was no sign of puncture. The source patient is known to be HIV-positive with a CD4+ count of 20 cells/ μ L and a viral load of 5000 copies/mL. The patient is taking zidovudine, lamivudine, and efavirenz. You follow post-exposure prophylaxis protocol but are uncertain whether this represents a true exposure requiring prophylaxis and if so, whether two or three drugs would be appropriate.

Clinical scenarios such as these present multiple decision-making dilemmas. Real-time discussion of complicated cases with other HIV experts can be

useful in choosing the best individualized care strategies. The National HIV/AIDS Clinicians' Consultation Center has two free national services that can help clinicians in managing these types of scenarios, the National HIV Telephone Consultation Service (Warmline) and the National Clinicians' Post-Exposure Prophylaxis Hotline (PEPline).

The Warmline provides consultation about the entire range of issues in HIV care, from diagnostic measures to complicated antiretroviral therapy. *The Warmline can be reached from 7 am–7 pm Central Time at 800-933-3413.*

The PEPline provides emergency consultation for needlesticks and other exposures to blood-borne pathogens, which require immediate assessment and management. *The PEPline can be called 24 hours a day at 888-448-4911.*

These services are offered free of charge. The Center has answered more than 70,000 Warmline and PEPline calls during the past 10 years. The Warmline and PEPline are staffed by physicians and clinical pharmacists experienced in HIV care and post-exposure prophylaxis (PEP) for health care workers.

The National HIV/AIDS Clinicians' Consultation Center is based at University of California, San Francisco, at San Francisco General Hospital, and is funded by the Health Resources and Services Administration (HRSA) and the Centers for Disease Control and Prevention (CDC).❖

Regional consultation service is provided by Delta AETC

Delta Region AIDS Education and Training Center has its own clinical consultation service for HIV clinicians in the states of Louisiana, Mississippi and Arkansas.

Consultants for the regional warmline are HIV experts at state university medical centers.

Requests for consultation are taken from 8:30-4:00 CST on weekdays and by voicemail on weekends. Peer consultants return calls within 48 hours.

If you are a clinician and wish to discuss a case with one of our consultants, use these numbers to contact your state warmline:
In Louisiana: 504-903-0788
In Mississippi: 601-984-6105
In Arkansas: 870-535-3062

NOTE TO HIV CLINICIANS:

Visit the HIV Clinician website regularly for updates:

[www.
deltaaetc.org](http://www.deltaaetc.org)



Nursing

HIV/AIDS nurses will gather in New Orleans in November

Marsha J. Bennett, DNS

For those of you who may not be aware, there is an organization for nurses who care for persons with HIV/AIDS. The Association of Nurses in AIDS Care (ANAC) was formed in 1987 in response to the increasing need for nurses to have a voice in the care of those with HIV and AIDS.

The purpose and mission of ANAC is "fostering the individual and collective professional development of nurses involved in the delivery of health care to persons infected or affected by the human immunodeficiency virus (HIV) and promoting the health, welfare, and rights of all HIV-infected persons.

Members of ANAC strive to achieve the mission by:

- creating an effective network among nurses in HIV/AIDS care;
- studying, researching and exchanging information, experiences, and ideas leading to improved care for persons with AIDS/HIV infection;
- providing leadership to the nursing community in matters related to AIDS/HIV infection;
- advocating for HIV-infected persons; and
- promoting social awareness concerning issues related to HIV/AIDS.

Inherent in these goals is an "abiding commitment to the prevention of further HIV infection" (www.anacnet.org).

The Journal of the Association of Nurses in AIDS Care (JANAC) is a peer-reviewed bi-monthly publication focusing on HIV research and practice issues for nurses and other health care

professionals. ANAC also offers basic and advanced certification for the HIV nurse. More information about the national and international efforts of ANAC can be found on their website at www.anacnet.org.

The New Orleans Nurses in AIDS Care (NONAC) was formed in 1992 and received official chapter charter from ANAC in 1994. Over 40 members strong, the local chapter serves to help

**ANAC provides
a voice for nurses
who care
for individuals with
HIV and AIDS.**

nurses working with persons with HIV/AIDS stay informed through educational presentations, bi-monthly meetings, award ceremonies, and networking. The Louisiana contact person is Demetrius Porche at dporch@lsuhsc.edu.

Inquiries about the Mississippi chapter of ANAC can be sent to Connie Thompson at cthompson@medicine.umsmed.edu.

There are 46 active ANAC chapters, and each year, there is a national conference; over 900 people are expected to attend this year. New Orleans is the host city for the conference, to be held at the Hilton Riverwalk, November 15 through 18, 2004. Scheduled for this year's conference are some

exciting speakers and presentations.

Keynote speaker will be Dr. Jocelyn Elders, former U.S. Surgeon General in the Clinton administration. She will address local and global sociopolitical climates affecting HIV/AIDS funding and care issues.

Exciting and stimulating plenary sessions are planned:

- Dr. Ruth Berggren will discuss HIV/AIDS in the Caribbean area, focusing on her work in Haiti.
- Dr. Paul Bascom will speak about the assisted suicide experiences in Oregon with HIV patients.
- Samuel Lurie will explore issues of transgendered HIV-infected individuals.

Other sessions include advanced nutritional concepts, advanced pain management, advanced concepts in management of neurological problems in HIV-infected persons, advanced concepts in HIV management, an update from the international AIDS conference in Bangkok, pediatric and adolescent psychological, growth and development issues, cultural diversity in HIV/AIDS care, palliative care, women and reproductive rights, and many more sessions, including abstract sessions and round tables. The preliminary conference program is scheduled to be released in July.

Special features for this year's conference include a jazz funeral to commemorate those no longer with us. The opening night gala will showcase local musical talents, and t-shirts and signed prints from photogra-

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pher-artist Bobby Wozniak will be available. Mark Monte has organized walking tours of the French Quarter, Garden District, and a half-day plantation tour.

Join us! This year's conference will abound with new information that will better equip you to provide state of the art care for your HIV/AIDS patients. For more information, contact ANAC online at www.anacnet.org. See you in November!❖

Marsha Bennett is Associate Professor, Department of Nursing, Nicholls State University.

Clinical Consultation for Health Care Providers

Delta Region health care providers can consult with HIV experts at university medical centers:

- Louisiana 504-903-0788
- Mississippi 601-984-6105
- Arkansas 870-535-3062



National HIV Telephone
Consultation Line:
800-933-3413

National Clinicians'
Post-Exposure Prophylaxis
Hotline (PEPIline):
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Health professionals earn continuing education credits at the Delta AETC's clinical HIV preceptorship programs

See back cover for our
training calendar

Free to clinicians: *The Hopkins HIV Report* newsletter

HIV clinicians are entitled to a free subscription to *The Hopkins HIV Report*, a bimonthly newsletter designed for HIV clinical providers.

The newsletter is published by the Johns Hopkins University AIDS Service and features articles by expert HIV clinicians about new drugs, treatment options, questions and answers from the Johns Hopkins AIDS Service Clinician Forum, and other clinical news relevant to HIV providers.

To subscribe to the print version of the newsletter, complete the online form at http://hopkins-aids.edu/publications/report/newsletter_subscribe.html.❖

Plan ahead to attend HIV conferences...

▲ August 30-September 1, 2004
3rd AIDS Vaccine 2004
Lausanne, Switzerland
www.aidsvaccine04.org

▲ September 9-10, 2004
Biomedical Prevention of HIV: Current Status and Future Directions
London, United Kingdom
www.rsm.ac.uk/academ/610-hivaid.htm

▲ September 10-11, 2004
2004 African American and Hispanic Leadership Conference on HIV/AIDS
Lexington, KY
ramonda.yocum@ky.gov

▲ October 30-November 2, 2004
44th Interscience Conference on Antimicrobial Agents and Chemotherapy
Washington, DC
www.icaac.org/

Dr. Zachary's Practical Guidelines for the Management of the Adult HIV-Infected Patient

**www.
HIVManagement.org**



Mental Health

New pharmacological tool approved for opioid addiction

Danny Sansovich, LCSW, ACSW

In the Winter 2003 edition of this publication (Vol. 15, No. 1), strategies were presented for working with HIV patients with a history of substance abuse or addiction. These included pain contracts, urine toxicology screens, and referral to a pain specialist. Now a new pharmacological tool can be added to the treatment strategy for patients addicted to opioids, including prescribed narcotics such as oxycontin.

In late 2002, the FDA approved the use of buprenorphine and a buprenorphine/naloxone combination product for use in opioid addiction treatment, marketed as Subutex and Suboxone respectively. No other buprenorphine product was approved for treatment of opioid addiction. Buprenorphine is now an additional choice to opioid addiction treatment, which includes methadone and LAAM (levo-alpha-acetyl-methadol).

Formulations (from <http://buprenorphine.samhsa.gov/>) Suboxone,[®] a sublingual tablet, comes in two dosage forms: 2 mg buprenorphine/0.5 mg naloxone and 8 mg buprenorphine/2 mg naloxone. Subutex,[®] also a sublingual tablet, is available in 2 mg and 8 mg strengths. The Subutex[®] and Suboxone[®] drug labels are available on the FDA website at: www.fda.gov/cder/drug/infopage/subutex_suboxone/default.htm

Physicians interested in treating patients for opioid addiction with buprenorphine

must first meet certain requirements. They must be actively licensed physicians in their state with a DEA number. The physician would notify the Center for Substance Abuse Treatment (CSAT) of intent to treat opioid-dependent patients and apply for a waiver to treat these patients with buprenorphine. In order to qualify for a waiver under the Drug Abuse Treatment Act of 2000 (DATA 2000), certain criteria must be met and an 8-hour course must be completed in the absence of previous qualification in addiction treatment. For more specific information on becoming qualified to treat with buprenorphine, see: http://buprenorphine.samhsa.gov/bwns/waiver_qualifications.html or call 1-866-BUP-CSAT.

To find a physician qualified to treat with buprenorphine, see the SAMHSA website at http://buprenorphine.samhsa.gov/bwns_locator/index.html.

As with any narcotic, the use of buprenorphine is not without risks, particularly if the patient continues to use other drugs or alcohol, with alcohol and benzodiazepines significantly increasing the risk of breathing difficulties that can be life threatening. Additionally, Suboxone (buprenorphine/naloxone combination) has a lower potential for abuse and/or diversion than Subutex (buprenorphine monotherapy) and should be considered if there is a possibility for abuse or diversion. For more detailed information please see: <http://buprenorphine.samhsa.gov/>.

The cost of treatment with both of these medications is comparable to the daily cost of methadone treatment, roughly about \$5 per day. However, it must be pointed out that this is usually significantly less than what an active opiate addict spends daily on illegal drugs. A typical treatment protocol for the initiation of buprenorphine might look as follows:

1. Opiate is lowered by taper to an equivalent of 40 mg of methadone or less.
2. On the Friday before buprenorphine induction, the patient will receive a prescription for buprenorphine, and get it filled.
3. On the Friday before buprenorphine induction, the patient will stop taking his opiate medication.
4. On Monday at 8:00 am, the patient will present to clinic, be checked in with vital signs, and seen by the psychiatrist at 8:30 am.
5. After evaluation by the psychiatrist and confirmation of weekend abstinence, the patient will be given his first 2 mg dose of sublingual buprenorphine. If the evaluation results in a judgment to abort induction, the patient will be returned to his old dose of opiate and the plan will be reconsidered.
6. During the day, as the psychiatrist directs, the patient will be rechecked and redosed up to a total of 8 mg of buprenorphine.
7. On Tuesday, the patient will report at 10:00 am and be checked in with vital signs. The

See Opioid addiction, page 10



Nutrition

Incarcerations, substance use are factors in weight fluctuation

Ginger Bouvier, MEd, LDN, RD

A 41-year-old HIV+ woman, C.C., was recently referred for nutritional counseling because of weight loss. While reviewing the patient's medical record, a pattern of weight gain and loss not unique to this patient was noticed.

C.C. had an extensive history of substance abuse and incarceration, and in fact was usually brought to the HIV clinic by the prison system in which she was incarcerated. When C.C. was in custody, her weight typically increased to the point of obesity. During a 16-month incarceration at the parish prison, her weight increased 38 percent, from 148 pounds to 204.5 pounds. In contrast, when she was released, her weight would plummet. See Table 1 on next page.

During incarceration at Louisiana Correctional Institute for Women, C.C. lost 38 pounds over a year. A possible reason for this weight loss is that inmates at LCIW are much more active

than those at Orleans Parish Prison. The inmates at LCIW are required to work at planting and harvesting vegetable crops which are used to feed the inmate population.

At the time of the nutrition referral (5/04/04), C.C. had not been in custody or to the HIV clinic for approximately eight months. Her weight had dropped 19 percent, from 146 pounds to 118 pounds, during these eight months, yet her CD₄ and HIV viral load were essentially unchanged. C.C. reported smoking crack cocaine "occasionally." She was given the following referrals by her physician:

- Social Work for food and transportation assistance, addiction counseling, disability application, and case management
- Nutritionist regarding Ensure supplementation

C.C. attended her nutrition appointment on 5/18/04. She stated she had no income, was homeless, and was staying at homeless shelters at night.

The shelters provide dinner and breakfast to the individuals who stay overnight. Many locations in the city provide lunch meals to the homeless. C.C. was given a list of these locations to obtain free meals, and she demonstrated the ability to read the list. C.C. also reported receiving \$141 per month in food stamps.

Nutrition counseling consisted of instructing C.C. on eating at the shelters, and purchasing healthful, nutritionally dense foods with her food stamps. She was also instructed on utilizing nonperishable, nutritious foods due to her living situation. Since at least 2/3 of her daily meals were provided by the shelters, she was given coupons for Ensure and it was recommended that she use her food stamps to purchase Ensure if she desired supplementation.

On 06/01/04, C.C. attended her physician and nutrition appointments, and reported having gotten an apartment with a friend. She had lost one pound from the previous visit,

[Opioid addiction, from page 9](#)

patient will be seen by a psychiatrist on Tuesday and after confirmation of abstinence from other opiates, the patient will be released to take a daily dose and return home after taking it.

8. On Wednesday, patient will present at 8:30 am and be seen by the psychiatrist at 9:00 am. At this point, decisions will be made concerning dose adjustment,

need for direct observed therapy, possible transition to naltrexone, and frequency of follow-up. If the patient is released to unobserved therapy, only Suboxone will be prescribed.

This would be followed only if the patient had been using methadone or other opiates. The test dose is necessary to see if the patient will go into a precipitated withdrawal. If the patient has been abstinent for longer

than two weeks, it may be possible to begin the above protocol without a test dose. The websites outlined above contain much more specific information than can be presented in this introductory article and should be considered recommended reading.❖

Danny Sansovich is Mental Health Specialist, HIV Outpatient Program (HOP) Clinic of Medical Center of Louisiana at New Orleans.



and was given a prescription for Megace (20cc/day), as well as 30 cans of Ensure (one can daily.) On 06/18/04, she attended her psychiatry appointment and requested to see the nutritionist. She reported taking Megace 20cc/day as prescribed and stated she drank all of the Ensure. Given the weight loss of two pounds in two weeks despite Megace, Ensure, and virologic control, C.C. was asked to submit a urine sample for toxicology screen. The toxicology was positive for cocaine.

This interesting case is representative of those instances where nutritional supplementation and nutritional counseling are of limited help. Without successful substance abuse treatment or another incarceration, this patient is unlikely to have nutritional improvement. ❖

Ginger Bouvier is Nutrition Specialist at the HIV Outpatient Program of the Medical Center of Louisiana at New Orleans and a faculty member of Delta Region AETC.

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Table 1 C.C.'s Weight Gain and Loss 1996-2004

Date	Incarc.	Weight	HAART	CD ₄	HIV VL	Comments
07/11/96	OPP	144#	No	433	----	First clinic visit; height ~65"
11/27/96	OPP	170#	No	513	----	
01/08/97	OPP	188#	No	----	----	
D/C from prison 01/11/97						
07/02/98	OPP	161#	No	756		Delivered baby 06/22/98
08/25/98	OPP	180#	No	572	4628	
10/06/98	OPP	189#	No	----	----	
Not in prison 10/98-03/99						
05/21/99	OPP	148#	Yes	----	----	
06/29/99	OPP	162#	Yes	----	----	
09/22/99	OPP	190.25#	Yes	658	<400	
12/07/99	OPP	194#	Yes	763	<400	
01/11/00	OPP	196#	Yes	----	----	
04/11/00	OPP	190#	Yes	792	<400	
05/30/00	OPP	188.75#	Yes	----	----	
09/26/00	OPP	204.5#	Yes	808	<50	
Transfer to LCIW 04/01						
10/09/01	LCIW	200#	Yes	900	<400	
10/23/01	LCIW	196#	Yes	----	----	
03/05/02	LCIW	188#	Yes	1172	<400	
04/30/02	LCIW	180#	Yes	----	----	
07/16/02	LCIW	168#	Yes	895	<50	c/o diarrhea
10/29/02	LCIW	162#	Yes	1111	<400	c/o stomach hurts
Not in prison 11/02-03/03						
04/16/03	OPP	138#	No	583	1320	
09/17/03	OPP	146#	No	632	662	
D/C from prison 10/03						
05/05/04	No	118#	No	645	729	Homeless
05/18/04	No	121#	No	----	----	Homeless, c/o poor appetite
06/01/04	No	120#	No	----	----	Got Rx for Megace, 30 cans Ensure
06/16/04	No	118#	No	----	----	Urine tox screen + for cocaine
Key: OPP = Orleans Parish Prison LCIW = Louisiana Correctional Institute for Women n/a = Not Available ---- = Lab Not Performed						

Check out the Delta Region AETC website at www.deltaaetc.org



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A clinical preceptorship for pharmacists: Pharmaceutical Care Issues in HIV Disease—October 17, 2004. 5 contact hours (.5 CEUs). Contact: Danielle Pierce, 504-903-0788 or dpierc@lsuhsc.edu

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A clinical preceptorship for dentists: Oral Health Management of the Patient with HIV Disease—October 18, 2004. 7 hrs CDE. Contact: Danielle Pierce, 504-903-0788 or dpierc@lsuhsc.edu

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HIV Clinician is published four times a year by
Delta Region AIDS Education and
Training Center (AETC), 136 S. Roman St.,
New Orleans, LA 70112.
Phone 504-903-0788, Fax 504-903-7893

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Non-commercial reproduction of this newsletter is encouraged. The opinions expressed are those of the authors and are not necessarily those of the Delta ETC. The Delta ETC is funded through the Ryan White Care Act by HRSA Grant 1H4AHA00002-01.

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