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## HEPP News, Vol. 2 No. 5

HIV Education Prison Project

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# HIV Education Prison Project HEPP NEWS

MAY 1999 • VOLUME 2, ISSUE 5

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## About HEPP

HEPP News, a forum for correctional problem solving, evolved out of ongoing discussions among HIV specialists based at the Brown University AIDS Program about the need for HIV updates designed for practitioners in the correctional setting. The board of editors includes national and regional correctional professionals, selected on the basis of their experience with HIV care in the correctional environment and their familiarity with current HIV treatment. HEPP News targets correctional administrators and HIV/AIDS care providers including physicians, nurses, outreach workers and case managers. Published monthly and distributed by fax, HEPP News provides up-to-the-moment information on HIV treatment, efficient approaches to administering such treatments in the correctional environment, national and international news related to HIV in prisons and jails, and correctional trends that impact HIV treatment. Continuing Medical Education credits are provided by the Brown University Office of Continuing Medical Education to physicians who accurately respond to the questions on the last page of the newsletter; please see last page for details.

The editorial board and contributors to HEPP News are well aware of the critical role prisons and jails play in the treatment and prevention of HIV. The goal of HEPP News is to provide reports of effective and cost-conscious HIV care that can truly be implemented within the correctional environment. We hope this newsletter achieves that goal.

### EDITORS

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### Faculty Disclosure

In accordance with the Accreditation Council for Continuing Medical Education Standards for Commercial Support, the faculty for this activity have been asked to complete Conflict of Interest Disclosure forms. Disclosures are listed beneath the authors' names.

**All of the individual medications discussed in this newsletter are approved for treatment of HIV unless otherwise indicated. For the treatment of HIV infection, many physicians opt to use combination anti-retroviral therapy which is not addressed by the FDA.**

*Hepp News is supported by an unrestricted educational grant from Agouron Pharmaceuticals and we gratefully acknowledge their support.*

## Update from the 6th Conference on Retroviruses and Opportunistic Infections

Chicago, Illinois, Jan 31-Feb 3 1999 - Part Two

**Anne De Groot, M.D.**

*Dir. TB/HIV Research Lab,  
Brown University School of Medicine*

*Consultant: Agouron, Bristol-Meyers Squibb; Speaker's Bureau: Agouron, Bristol-Meyers Squibb, Glaxo Wellcome.*

Last month we brought you reports on immunology and new treatments from the 6th Conference on Retroviruses and Opportunistic Infections. This month we continue our synopsis with reports on HIV care utilization, viral load monitoring, and warnings about new clades and drug resistant HIV isolates.

### • HIV Care Utilization

Dr. Sam Bozzette presented his data from a national consortium of HIV providers (1). The HIV Cost and Services Utilization Study (HCSUS) (2), described the impact of HIV care on health, and the cost of that care in the "outside world". Delivery of care "outside" may directly impact correctional HIV care due to its effect on the health of HIV infected inmates arriving in correctional facilities.

Bozzette used information published by the New York State Department of Correctional Services (NYSDOCS) on the reduction in HIV-related mortality to illustrate his first point: HAART has had an impressive impact on AIDS mortality (see graph, pg. 5) (3). To support this point, he referenced three other studies that describe how HIV morbidity and mortality rates have been reduced when good HIV care, expert consultation, and HAART have been made available to patients. One study showed that hospitals "experienced" in HIV care had a 21% lower death rate for *Pneumocystis Carinii Pneumonia* (PCP) than hospitals that were less experienced (4). A second study showed that HIV infected patients in the care of experienced providers had a 31% lower AIDS mortality rate than patients in the care of other providers (5). A third study proved that patients in clinics with more than two HIV "services" had a 36% lower adjusted odds of developing PCP than those in clinics with one or none (6).

### • AIDS Cases Decreasing with HAART

Bozzette reported some dramatic facts gleaned from studies of the large cohort of 3,072 HIV infected patients followed by the HCSUS HIV providers. He and his collaborators found that the proportion of persons living with T cell counts less than 200 has decreased nationally from 35% to 17% between 1996 and 1998. The number of persons with CD4 T cells above 200 has increased, suggesting that HAART is "arresting" the national rate of progression to AIDS. These researchers extrapolated from their study sample to estimate that about 335,000 persons attended HIV clinics in the past year, representing only about half of the 600,000 to 900,000 persons thought to be currently living with HIV, according to the CDC (7).

The HCSUS group found that the distribution of HIV patients in care was skewed towards lower CD4 T cell counts. This suggests that most of the patients who are not in care are in the early stages of HIV. Bozzette raised concern about identifying these individuals and getting them into treatment, since, for some patients, the best time to begin treatment to prevent the advancement of HIV disease may be during the early stages of infection.

### • Access to HIV Specialty Care

Not all of the patients in Bozzette's study received specialty care in HIV clinics. While 50% of patients obtained care in HIV specialty clinic settings, another 23% used emergency rooms as one of their primary sources of health

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## LETTER FROM THE EDITOR

Dear Colleagues,

It is my pleasure to be the guest editor for this month's issue of HEPP. This issue is particularly relevant to my work, as it includes a spotlight on the New York State Department of Correctional Services (NYSDOCS). We, at the NYSDOCS, provide care for approximately 8,700 inmates living with HIV. Based on information provided in this issue, that number is equivalent to almost 3% of the number of HIV patients under care in the United States!

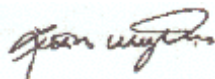
Other topics this month include (in this month's continuation of the 6th Conference on Retroviruses and Opportunistic Infections summary) HIV care cost and utilization; HIV infection among blood donors, and gender differences in viral load measurements. The author, colleague and HEPP co-editor Anne De Groot, also discusses the relevance of these issues to health care in the correctional setting. In keeping with HEPP News' dedication to providing practical information on HIV management for the correctional setting, the HEPPigram this month reviews viral load measurements. This month's HIV 101 topic is routine immunizations for HIV infected patients. Finally, Dr. Sharee Starrett of New Jersey Correctional Medical Services contributes a "front line" perspective on managing CMV in the "ask the experts" section.

After reading this issue, readers should be able to recognize meaningful changes in HIV viral load, name several possible approaches to managing CMV, recognize possible differences in viral load by gender, and understand the impact of new treatment approaches on the cost and utilization of HIV care in outpatient settings.

Next month we will feature a report on HIV infection among incarcerated women, written by Dr. Kathryn Anastos of New York, Dr. Anne De Groot, and Betsy Stubblefield. That issue will include a spotlight on Pam Dole, a specialist in the gynecological examination of sexually traumatized women. As many incarcerated women are victims of some form of sexual abuse (see this month's news flashes), this topic is extremely relevant to correctional HIV care.

Thank you for your interest in HEPP News and your continuing support for improving the health care of inmates. Please take a moment to write the editors back. Tell us whether HEPP News works for you and how it might be improved.

Sincerely,



Lester Wright  
Associate Commissioner/Chief Medical Officer  
New York State Department of Correctional Services

## Save The Dates

### National HIV Prevention Conference

August 29-September 1, 1999

Hyatt Regency Atlanta Hotel, Atlanta GA.

Sponsored in part by: The National Minority AIDS Council, American Social Health Organization (ASHA), the Centers for Disease Control (CDC), The National Association of People With AIDS (NAPWA)

Register: by July 23, 1999, or after July 23 on site.

Contact: The National Minority AIDS Council, attn: NHPC, 1931 13th Street, NW, Washington DC 20009-4432

Phone: 404.639.1942 e-mail: 99hivconf@cdc.gov

### 10th Annual HIV-Meeting the Challenge Conference

May 18, 1999

Fairfax, VA,

Sponsors: Northern Virginia HIV Resource & Consultation Center; Inova HIV Services.

Contacts: Jacqueline Morgan, Inova HIV Services,

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## The 6th Conference on Retroviruses and Opportunistic Infections

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care. Perhaps as a result, 30% of those with a CD4 count less than 200 were not on PCP prophylaxis (1). Many measures of HIV care utilization differed by race and ethnicity. Compared to non-Hispanic whites, Hispanics and Blacks had fewer clinic visits, more IDU use, less ART, less PI, and less PCP prophylaxis. Access to HAART was also linked to race, income, active drug use, gender, risk behavior, geography, attitudes and beliefs about HIV care, and whether the HIV care provider for the patient focused primarily on HIV care or was involved in other aspects of health care. These findings come as no surprise to the correctional HIV provider. Providing HIV specialty care and related services in the correctional environment is one means of improving access to HIV treatment for these under-served populations.

Adherence in the HCSUS study population was fairly poor: 57% of patients reported that they were adherent 7 days a week, 19% reported that they were adherent 6 days a week (1). These self-reports may also over estimate actual adherence, raising grave concerns about the evolution of drug resistant virus in the HIV-infected patient population at large.

#### • How Much Does HIV Care Cost?

Bozzette and colleagues estimated that there were 2 million outpatient visits, 100,000 Emergency Room (ER) visits, 900,000 hospital days and 85,000,000 days of antiretroviral therapy in the first six months of 1996 (1). The cost of this HIV care was about \$6.7 billion per year, which was less than 1% of the total US expenditure on health care during 1997 (1). In contrast, HIV-AIDS was the cause of 7% of total lives lost during the same

year.

Bozzette also evaluated the impact of HAART on total HIV care costs. Most of the cost of treating HIV/AIDS in his cohort related to pharmaceutical expenditures. He found that drug expenditures and clinic visits have increased, but ER visits and hospitalization have decreased, and the total cost of caring for HIV/AIDS patients was no different after these adjustments. During a post-presentation interview, Bozzette indicated that similar figures for the impact of HAART in the correctional setting were not available.

The good news for correctional healthcare providers who manage HIV patients is that there has been a slight decrease in HIV care costs and improvement in service utilization from 1996 up until now. That means that more of our patients will have been tested and treated with HAART before they arrive at a correctional setting. The bad news is that the number of patients who adhere to their regimens is much less than would be desirable. The most important impact of new HIV treatments has been on mortality; death rates have dropped dramatically. Setting aside tangible financial benefits, the intangible emotional benefits of HAART are palpable both inside and outside corrections.

#### • HIV Infection in US Blood Donors

Full time blood donors are screened for HIV-risk behaviors; blood is also screened for evidence of HIV infection before use. Information from blood-donor screenings was presented by the CDC (10) giving a novel perspective on the actual incidence of HIV infection among a group of individuals who do not consider themselves at risk. The relevance of this topic to corrections is that it expands the ability to identify HIV infected persons who may not have reported stan-

dard "HIV risks."

The average rate of acquisition of HIV infection among full time US blood donors was 8 per 100,000 person years, much lower than among higher risk groups (10). Studies have found, however, a higher prevalence of HIV than the donors may have expected. Persons in Southeastern states (20-26 new infections per 100,000), persons of color (25-30 fold higher HIV incidence rate than whites), and persons in the 22 to 45 age range who do not consider themselves to be HIV infected (2 fold higher than persons older or younger than that age group) may have a higher risk of HIV infection than previously thought.

#### • New Strains of HIV

In a substudy of 31 recently infected blood donors, researchers found evidence, in one patient, of acquisition of a clade A virus. All of the other new infections appeared to cluster with B strains. This report of a non-clade B virus (the usual strain of virus transmitted in the US) suggests that the US is not immune to invasion of other strains of HIV that dominate the epidemic in other parts of the world.

The most important finding in this study is related to drug resistance: 18 out of the 31 infections among blood donors had changes related to drug resistance. Resistance to protease inhibitors predominated. The take-home message for corrections was that drug resistance can be widespread in "free world" populations. Therefore, patients on HAART should be monitored for response to treatments and intensification of regimens should be considered if response is inadequate. As discussed in the last issue of HEPP News, viral resistance testing (genotypic anti-retroviral resistance testing, or GART) is a tool

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### The "Inside" View: Extrapolating HCSUS Data to Corrections

Bozzette's data are relevant to correctional HIV care providers because they give us a rough estimate of the proportion of the national HIV infected population that is under our care. The National Bureau of Justice Statistics (BJS) recently estimated that there are 35,000 to 47,000 patients with HIV infection in the nation's prisons and jails (8). Comparing this figure to Bozzette's estimates, prisons and jails are providing care for approximately one tenth of the total number of HIV infected individuals that are accessing health care.

The HCSUS study also permits some budgetary contrasts. Allowing for some differences in budget estimates, current expenditures on HIV care in correctional settings may be in the same range as expenditures in the "free world". These estimates run counter to public sentiment that "too much money" is spent on correctional HIV care.

For example, recent estimates of HIV/AIDS related expenditures reported by the New York State Department of Correctional Services (NYSDOCS) were \$10.8 million directly spent on medical services, and 45.8 million on AIDS programs for approximately 3,000 inmates that are currently accessing HIV care in the NYSDOCS (9). The Florida State DOC reported spending \$19 million in 1998 on HIV medications alone for approximately 2,100 HIV infected patients.

Just as Bozzette observed for his community patients, HIV infected patients in the correctional setting seem to be unwilling or unable to access HIV care: less than 50% of the estimated 7,500 to 8,500 HIV infected individuals in the NYSDOCS population are participating in clinical care (10). While some of these HIV infected individuals may be avoiding HIV care because they are not yet personally "ready" or willing to participate in HIV treatment, some individuals may be actively avoiding HIV care because of the nature of the correctional setting.

Since we now know that early intervention can preserve immune function and reduce morbidity, efforts to identify HIV infected patients and encourage them to participate in HIV care inside the correctional environment are critically important. Some methods that are believed to increase inmate participation in HIV care include: peer education, provider and correctional officer education on HIV risk factors (critical pathways), multiple opportunities to access HIV testing, confidential test results, improving HIV care quality, and reducing barriers to accessing HIV care.

Due to the concentration of individuals who have HIV infection or are at risk of HIV infection in correctional settings, correctional providers have a unique opportunity to get at-risk individuals tested and engaged in treatment.

## The 6th Conference on Retroviruses and Opportunistic Infections

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that expands our ability to make better-informed decisions on treatment (For more information see the March HEPP News archives at [www.hivcorrections.org](http://www.hivcorrections.org)).

### • Variations in Viral Load by Gender: Men

Dr. R.Lyles presented information on the "natural" progression of viral load in a subset of 270 men enrolled in a large study called the Multicenter AIDS Cohort Study (MACS)(11). This cohort has been described in detail in previous publications (12). For this report, Dr. Lyles and co-workers stratified the patients by viral load and examined progression to AIDS. Patients who had lower viral load (less than 10,000 copies/ml) at the outset of the study, had slower progression to AIDS than patients who had a higher viral load (averaging around 100,000 copies) at the outset (progressing to AIDS within the first three years). Patients who did not progress to AIDS within 7 years of the first viral load had no change in the viral load over time; and those who were AIDS free after 9 years or more had a slight decrease in the MRNA level over time. Dr. Lyles provided data showing that progression to AIDS could be extrapolated given data points covering about 1.5 years.

It is important to emphasize that much of the data derived from the MACS cohort was derived prior to the widespread use of HAART. When questioned about the impact of HAART on these results, the researchers suggested that the impact of access to care, treatment, and adherence was summarized in the viral load measurements, and therefore felt that their results were still accurate.

### • Women Progress at Lower Viral Loads

Dr. Kathryn Anastos and co-workers compared patients enrolled in the Women's Interagency HIV Study (WIHS) and MACS (a

similar study of men) (13). They evaluated the HIV RNA levels of women in WIHS who had not initiated ART at the beginning of therapy, and contrasted their viral loads to a comparable subset of men in the MACS cohort.

In the final analysis, the HIV RNA among women in this study was 20% lower than the viral burdens in men with the same CD4 T cell count who were enrolled in the MACS. After adjustments for age and racial differences in the cohort, Dr. Anastos found that the viral load at which equivalent rates of progression to AIDS occurred was as much as 35% lower for women than the rates observed for men. If anything, these estimates, according to Dr. Anastos, underestimate the true differences between women and men. In response to a question from the audience, she replied that we don't know, as of yet, whether we should initiate HAART at lower viral loads for women than for men. She suggested that a controlled, prospective study of gender differences in viral loads would allow researchers to better control for confounding factors, such as access to health care and adherence.

### • Need for More Correctional Studies

The lack of reports directly related to correctional HIV care at the Retrovirus Conference reflected a disconcerting lack of interest by academic researchers about the impact of HIV on inmates. Since as many as 10% of the nation's HIV infected population may be accessing care in a correctional setting, it seems appropriate for a shift in focus. One means to accomplish this might be for correctional HIV providers to conduct clinical studies in their facilities, and to submit their reports to national meetings.

For information on submitting research to the 7th Conference on Retroviruses and

Opportunistic Infections, contact the Retrovirus Conference Secretary at 703/684.4876. Abstracts available at the conference website at <http://www.retroconference.org/99/>

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- 12) 6th Conference on Retroviruses and Opportunistic Infections, Abstract 273. Natural history of HIV-1 Viremia after seroconversion in the Multicenter AIDS Cohort Study. Lyles R, et al.
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## HEPPigram

**A feature of HEPP news providing concise solutions to correctional HIV-related problems**

### Calculating Viral Loads

Viral Copies		Change from Hypothetical Baseline*	
Log <sub>10</sub>		Log	
6	1,000,000	+2	
5.7	500,000	+1.7	
5.3	200,000	+1.3	
4.7	50,000	+0.7	
<b>4</b>	<b>10,000</b>	—	
3.7	5,000	-0.3	
3	1,000	-1	
	400		
2.5	300	-1.5	
2	100	-2	
	50		
1	10		
0	0		

### Viral Load Measurements

This table is useful for monitoring the success or failure of HIV medication. These numbers are expressed in logarithmic form in order to compare changing viral loads. A change from a viral load of 1,000,000 copies/mL to 10,000 copies/mL represents a 2 log reduction in viral load. Only changes that are greater than 0.3 to 0.5 log (twofold or threefold) are considered meaningful in terms of a patient's response to medication.

\*10,000 copies/mL is presented as a hypothetical baseline viral load to facilitate comparison of increases and decreases in viral load.

\*\*The Ultrasensitive Viral Load Test can detect viral loads as low as 50 copies/mL.

# Spotlight: The New York State Department of Corrections

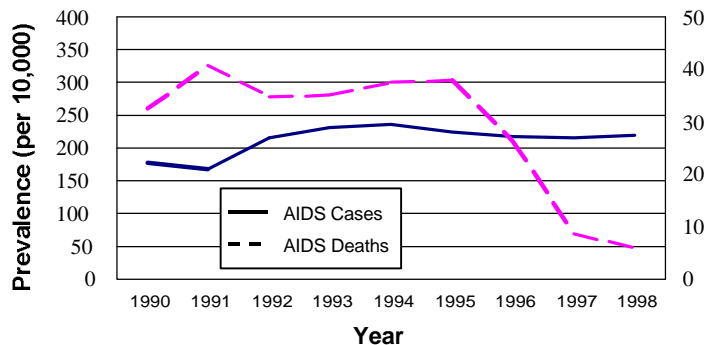
The New York State Department of Corrections Services (NYS-DOCS) faces a unique health care challenge: a much higher number of HIV/AIDS cases than any other state correctional system in the country (see bar graph of correctional populations). The estimated number of HIV infected inmates nationally at year end 1996 was 24,881. The NYSDOCS was responsible for 8,700, or 35% of the nation's HIV infected inmates (1). This was three times higher than the rate of HIV infection in New Jersey DOC (705 or 3% of the inmate population), the state with the next highest rate of infected inmates, and over four times larger than the Florida DOC (2,152 or 3% of the inmate population).

Provision of comprehensive HIV care for inmates is a challenge in any state, but New York faces some special challenges. Four out of five inmates call the New York City region home but most prisoners are transferred upstate to one of sixty-nine facilities. This is far not only from their homes but also from their past sources of health care, if they had any, and their future sources of care. Furthermore, the NYSDOCS, like most state systems, frequently transfers inmates among its facilities. There are approximately 650 such transfers between NY state facilities every day, or 170,000 per year. Keeping track of medications and medical records during these transfers is a formidable problem. Continuity of care at the time of release can also be difficult because of the geographic distance between upstate facilities and post-release locations.

tional planning so that when released they are already connected with a continuing source of health care and have been enrolled in AIDS Drug Assistance (ADAP) programs.

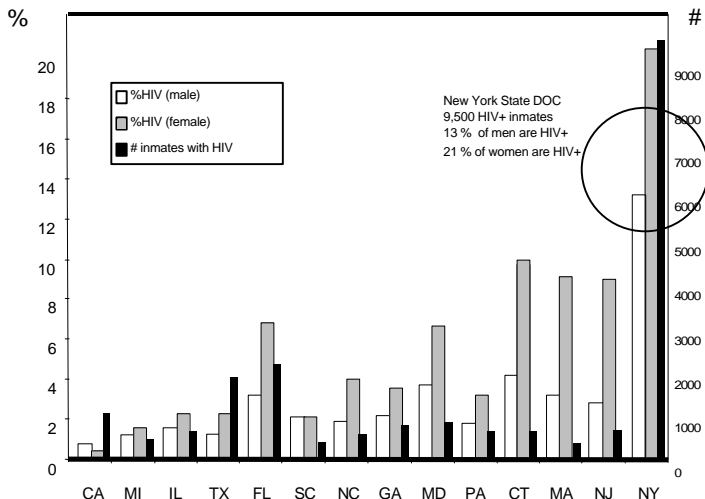
Although faced by these enormous challenges, the absolute number of AIDS deaths in the NYSDOCS has declined in the past few years, while the number of AIDS cases has remained quite constant. The improvement is consistent with but greater than similar improvements in the community. This probably reflects not only the availability of newly developed antiretroviral medications both in the community and inside corrections but also improved care within NYSDOCS where health care providers have had HIV-related continuing education including a unique program developed by Albany Medical College's Division of HIV Medicine (AMC) and NYSDOCS. An ongoing series of live satellite-broadcast programs on Management of HIV/AIDS in the Correctional Setting is downlinked throughout New York and to over half of the states (see Save the Dates). Short term mini-residencies in HIV care are available through AMC.

## Comparison of AIDS Cases and AIDS Related Deaths in NYSDOCS



A report on HIV in the New York Department of Corrections included a table showing this reduction of AIDS deaths and a stabilization in the number of new AIDS cases. Adapted from the January 8 1999 MMWR Vol. 47/Nos. 51&52.

## State Comparisons of HIV + Inmates



The percentage of men and women who are HIV infected is based upon State and Federal Prison populations. These figures represent the number of known cases, which may be underestimates depending on each state's testing policies, inmate access to care, etc. In most prisons, the proportion of HIV infected women is much higher than HIV infected men. (Source: Maruschak, Laura. *HIV in Prisons and Jails*. Bureau of Justice Statistics. 1998.)

NYSDOCS in collaboration with the State AIDS Institute has developed and regularly revises clinical treatment guidelines consistent with national recommendations to improve continuity of care. Supplies of medication are sent with inmates on transfer and at release. Inmate transfers are tracked by a computer system. The NYSDOCS is also evolving toward fully electronic health records. All inmates and staff are given annual education in avoiding blood-borne infections. In a number of prisons, very active Peer Education programs present the prevention message.

NYSDOCS and the AIDS Institute jointly fund voluntary HIV counseling and testing directly and through community-based organizations (CBO). In 1998 over 25,000 voluntary HIV tests were done for inmates. The CBO also work with HIV infected inmates on transi-

HIV care is monitored by NYSDOCS regional staff using flow sheets incorporated in the treatment guidelines. In addition, NYSDOCS pharmacists notify care providers if they note apparently inappropriate care (e.g. monotherapy with protease inhibitors). Programs and materials to encourage adherence to treatment are developed jointly by AMC and NYSDOCS with ongoing assistance of pharmaceutical manufacturers.

HIV as well as other specialty care is provided by NYSDOCS through contracts that must include designated AIDS Treatment Centers. This assures that specialist consultation is available to inmates wherever they are in the State. In addition, a network of Regional Medical Units that provide sub-acute inpatient care within maximum security perimeters is available. These units help maintain consistent care and also reduce cost; they serve as referral hubs. Half of the prisons are linked by telemedicine equipment and some of the consultations are being provided through video. According to Dr. Lester Wright, Associate Commissioner/Chief Medical Officer of NYSDOCS, the improvement in survival and decreases in opportunistic infections and hospitalization are encouraging, but the potential for rebound as resistance develops to currently available antiretroviral medications underscores the importance of ongoing prevention education for inmates and staff, more effective programs on adherence, and monitoring of the care that is given.

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## Ask The Expert

A.B. is a 39 year old African American male, who presented to the correctional facility's acute care hospital with pneumocystis pneumonia as the initial manifestation of his HIV disease. His initial CD4 count at diagnosis was 0 CD4 T cells/cL, and his RNA PCR viral load was 110,000 copies/mL. Upon return to general population from the hospital, he was started on HAART therapy with indinavir, stavudine, and lamivudine. Two weeks after the initiation of antiretroviral therapy, he developed severe dysphagia which failed to respond to empirical therapy with fluconazole, H-2 blockers, and omeprazole. Three weeks after the onset of symptoms, the patient underwent outpatient upper endoscopy. This procedure revealed ulcerations of the esophagus that were typical for CMV; histology confirmed the diagnosis.

C.D. is a 41 year old African American male, who first presented in 1996 with severe anemia and was found to have disseminated mycobacterium avium complex (MAC) on bone marrow biopsy. Although his MAC was successfully controlled by his correctional HIV providers with clarithromycin and ethambutol, virologic control of his HIV disease was never achieved. At a routine clinic visit, he noted that he had been having visual difficulties for several weeks. The consulting ophthalmologist saw the patient on an emergency basis and confirmed the diagnosis of CMV retinitis.

## What Would You Do?

**Sheree Starrett**, Deputy Director AIDS Services, Correctional Medical Services, New Jersey

*Speaker's Bureau: Bristol-Meyers Squibb, Glaxo-Wellcome, Merck, Roxane.*

Prior to the advent of highly active antiretroviral therapy (HAART), various manifestations of cytomegalovirus (CMV) infection were frequently seen in HIV positive patients. Because of the difficulties of establishing a diagnosis of CMV disease and the need for intravenous therapy once the disease is found, inmates suspected of this diagnosis would often require prolonged hospital stays. New pharmacologic agents and new therapeutic delivery modes have been approved over the past 3 years to provide clinicians with more than one treatment option for CMV. These treatments provide an alternative to the long hospital stays by making it possible to treat CMV on an outpatient basis, which is optimal for an infected inmate (1). Even better, it is now possible, in some cases, to discontinue expensive and complicated therapies if the patients respond to anti-retroviral therapy with elevations of their CD4 T cell count in excess of 200 cells/cL for greater than 6 months (for more details, see HEPP News March 1999, archived at [www.hivcorrections.org](http://www.hivcorrections.org)).

One option for both AB and CD is outpatient placement of a PICC line to enable prolonged intravenous access. I have treated a patient whose case resembles that of AB. My patient also had esophageal CMV and an extremely low CD4 T cell count of 0 CD4 T cells/cL. This intervention makes it possible to give IV ganciclovir in the correctional infirmary setting. Within 36 hours of diagnosis, my patient received his first dose of IV ganciclovir. He had an excellent clinical response to his HAART, as might patient AB, since they were both anti-retroviral naïve. His viral load became undetectable, and his CD4 T cell count stabilized above 200 CD4 T cells/cL for more than 6 months. Because of this, IV ganciclovir was eventually discontinued. Patient AB should see the same success.

Other possible treatments for CMV include ocular implants coupled with oral ganciclovir (2). This intervention has recently been proven to effectively prevent systemic recurrence of CMV disease, which was one of the problems associated with local treatment (ocular implants without any additional systemic therapy). Alternatively, IV foscarnet has been preferred to ganciclovir in some clinical settings due to reports that foscarnet was associated with a survival advantage when compared to ganciclovir in national randomized control trial (3). Intravenous cidofovir can be administered via peripheral line at infrequent intervals (once every two weeks after the once weekly induction is completed), which makes it an attractive substitute for ganciclovir and foscarnet in some settings. Comparisons to ganciclovir and foscarnet are underway (4). Renal toxicity is a fairly common side effect of cidofovir, which can be prevented by the administration of probenecid (4). Oral ganciclovir is another alternative for maintenance therapy after IV induction. According to the recent NEJM report, oral ganciclovir in combination with ocular implantation of a slow release agent is equally effective as IV induction and maintenance in preventing new cases of CMV. However, the ganciclovir implant with oral

ganciclovir was substantially more effective than intravenous ganciclovir in controlling retinitis. An additional merit for the implant and oral treatment is that the patient does not have to suffer the discomfort of an IV (2).

Unfortunately, because patient CD has failed his antiretroviral therapy regimen, he will require long term intravenous ganciclovir. Furthermore, it is important to consider the realities of providing an IV treatment in the correctional setting. In many systems, those with such devices have limited housing options and therefore suffer limitations on work, schooling, visiting, and so forth. Additional troubles arise when a patient is transferred, paroled, or sent out to court. These limitations can make it very difficult to ensure uninterrupted intravenous therapy. Implants and oral ganciclovir, on the other hand, although more expensive (when the cost of the surgery, implant, and oral ganciclovir are added up) are very low maintenance and can enable our patients to avoid treatment interruptions, which may cut treatment costs in the long run. For those inmates who fail to seek medical follow up post parole, the implants also provide a window during which a new source of treatment may be identified.

Both of these cases show that even a disease as problematic as CMV can be successfully evaluated and treated on an outpatient basis in the prison setting. It requires expertise on the part of prison physicians to be able to recognize the myriad manifestations of CMV and to manage the disease once diagnosed. The prison medical team must be able to access the necessary specialists in as urgent a time frame as possible. Full cooperation from custody staff is essential in order to insure that the prisoner is successfully transported to all appointments.

In the era of effective antiretroviral therapy, the number of opportunistic infections has declined dramatically. However, we must remain ever vigilant to those patients who will develop opportunistic infections. Many prisoners are often reluctant to leave their home prison and may even fear being hospitalized as a strange hospital with unfamiliar doctors. The ability to care for a disease such as CMV on an outpatient basis should help relieve some of the emotional burden patients will experience when their HIV diseases progress.

### References:

- 1) Rahhal F. Treatment advances for CMV Retinitis. *AIDS Reader*, p. 28-34, Jan/Feb 1999.
- 2) Martin D, et al. Oral Ganciclovir for patients with cytomegalovirus retinitis treated with a ganciclovir implant. *NEJM* April 8, 1999. 340(14).
- 3) Spector SA, Weingeist T, Pollard RB, et al. A randomized, controlled trial of IV ganciclovir therapy for cytomegalovirus retinitis in patients with AIDS. *AIDS Clinical Trials Group and Cytomegalovirus Cooperative Study Group. J Infect Dis* 168:557-563, 1993.
- 4) Lalezari JP, Holland GN, Kramer F, et al. Randomized, controlled study of the safety and efficacy of intravenous cidofovir for the treatment of relapsing cytomegalovirus retinitis in patients with AIDS. *J Acquir Immune Defic Syndr Hum Retrovirol* 17:339-344, 1998.

# News Flashes

**March 17, 1999**

## Bill Would Make HIV Testing Mandatory in Florida Prisons

The Florida Legislature is considering a bill that would require prison inmates to be tested for HIV, a measure spearheaded by African-American lawmakers who called it the "No. 1 issue for (the black) caucus." Co-sponsor state Rep. Tony Hill (D) said the impetus for the measure was a recent Kaiser Family Foundation study that showed 35% of all AIDS cases and 43% of new cases occur among blacks. The bill would mandate testing for inmates within 30 days of arrival at a state prison. Those who test negative would be tested after 180 days, and again 60 days before being released. The Wall Street Journal/Southeast Edition reported that "[t]hose who test positive will be offered treatment," and the results of the tests will be confidential. County health officials will be notified if an inmate is released by an emergency court order. Civil liberties groups were critical of the measure. (Wall Street Journal/Southeast Edition, 3/17/99).

**April, 1999**

## Inmates Report Higher Prevalence of Abuse Histories

The Bureau of Justice Statistics recently released data from a study on sexual abuse among inmate populations entitled *Prior Abuse Reported by Inmates and Probationers*. Over a third of the women in the study reported a history of physical or sexual abuse. More than 36 percent of the female inmates reported sexual abuse before age 17, which was twice the rate of child abuse reported by men inmates (15%). For both male and female inmates, reports of childhood sexual abuse histories were twice as high as have been reported for non-incarcerated men and women. Male inmates reported sexual abuse by family members most often, while female inmates reported having experienced sexual abuse by intimates and family members. About half or more of incarcerated women reported their abusers to be current or previous boyfriends or husbands. A history of abuse was found to be linked to incarceration for sexual assault or homicide. This report also discusses prevalence of abuse as related to foster care, single parent households, parental alcohol abuse, incarcerated relatives, drug and alcohol abuse, and reason for incarceration. To see the report, go to: <http://www.ujp.usdoj/bis/abstract/parip.htm>

**April, 1999**

## Injunction Awarded Against Jail for Inadequate HIV Care

On April 16, a federal judge awarded a preliminary injunction in favor of six HIV-seropositive inmates incarcerated at the Fulton County Jail, Atlanta, Georgia. The nonprofit Southern Center for Human Rights filed a lawsuit on behalf of the inmates on April 9, protesting a recent policy change where HIV positive jail inmates no longer have access to HIV expertise at the Grady Hospital. According to the Atlanta Journal-Constitution, this policy was enacted by the board that oversees Grady Hospital to address a projected \$26 million dollar shortfall in the budget. Prior to April of this year, Grady was providing jail inmates with all of their HIV medications. Approximately 150 inmates housed at the jail are affected by this change, according to Atlanta lawyer Tamara Serwer, of the Southern Center for Human Rights. Among the defendants in the lawsuit are the members of the Fulton County Commission, a group of legislators who oversee the jail's budget.

**April 29, 1999**

*As first reported in last month's HEPP News...*

## Discontinuation of Primary PCP Prophylaxis Studied

In two articles published in the *New England Journal of Medicine*, investigators at two research centers concluded that stopping primary PCP prophylaxis was safe in HIV patients who are receiving antiretroviral therapy and who have sustained CD4 counts of at least 200 cells/cubic meter and to a minimum of 14 percent of total lymphocytes for a prolonged period of time (at least six months in most cases).

This recommendation is not yet official and the benefit of stopping one daily pill must be weighed against the risk of losing the protective effect that same pill has against other opportunistic infections (toxoplasmosis). The two articles from the April 29, 1999 publication can be found online at: <http://www.nejm.org/content/index.asp>. The references are: Furrer H, Egger M, Opravil M et al. Discontinuation of Primary Prophylaxis Against *Pneumocystis Carinii* Pneumonia in HIV-1-Infected Adults Treated With Combination Antiretroviral Therapy. *NEJM*, 340 (17) 1301; and Masur H, Kaplan J. Does *Pneumocystis Carinii* Prophylaxis Still Need to Be Lifelong? *NEJM* 340 (17) 1356.

# Resources

## WEBSITES:

### **The Bureau of Justice Statistics**

<http://www.ojp.usdoj.gov/bjs/>

### **CDC HIV/AIDS Statistics**

[http://www.cdc.gov/nchstp/hiv\\_aids/stats/hasr1001.pdf](http://www.cdc.gov/nchstp/hiv_aids/stats/hasr1001.pdf)

### **The Corrections Connection**

<http://www.corrections.com>

### **The 6th Conference on Retroviruses & Opportunistic Infections (homepage)**

<http://www.retroconference.org/99/>

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### Self-Assessment Test for Continuing Medical Education Credit

Brown University School of Medicine designates this educational activity for 1 hour in category 1 credit toward the AMA Physician's Recognition Award. To be eligible for CME credit, answer the questions below by circling the letter next to the correct answer to each of the questions. A minimum of 70% of the questions must be answered correctly. This activity is eligible for CME credit through July 15, 1999. The estimated time for completion of this activity is one hour and there is no fee for participation in this activity.

Indicate whether the following statements are true or false:

1. CMV can be treated while the patient is in the general population.

True    False

2. Both a woman and a man with a CD4 count of 350 and a viral load of 20,000 copies will progress to AIDS within the same time period.

True    False

3. According to a recent NEJM report, oral ganciclovir in combination with ocular implantation of a slow release agent is equally effective as IV induction and maintenance in controlling retinitis.

True    False

4. The use of HAART has increased the overall cost of HIV care.

True    False

5. Prisons and jails may be providing care for approximately one tenth of the number of HIV infected individuals that are accessing care outside of corrections.

True    False

6. A change in viral load of 0.2 logs implies a significant response to HIV medication.

True    False

7. Progression to AIDS can be extrapolated given data points covering about 6 months.

True    False

8. Studies of blood donors revealed what new finding?

- a) Many blood donors are aware of their HIV risk
- b) Incidence of HIV infection among blood donors is much higher than among incarcerated persons
- c) New types of HIV (other clades ) may be entering the US
- d) HIV incidence among blood donors is highest in the North East

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Main Article	5	4	3	2	1	5	4	3	2	1
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HEPPigram	5	4	3	2	1	5	4	3	2	1
News Flashes	5	4	3	2	1	5	4	3	2	1
Save the Dates	5	4	3	2	1	5	4	3	2	1

2. Do you feel that HEPP News helps you in your work? Why or why not?

3. What future topics should HEPP News address?

4. How can HEPP News be made more useful to you?

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