



HIV Education Prison Project HEPP NEWS

December 1999 • Volume 2, Issue 11

Brown University School of Medicine Providence, RI 02912
tel: 401.863.2180 • fax: 401.863.2660 • www.hivcorrections.org

About Hepp

HEPP News, a forum for correctional problem solving, 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 HIV treatment in the correctional environment, national and international news related to HIV in prisons and jails, and changes in correctional care 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.

The editorial board and contributors to HEPP News include national and regional correctional professionals, selected on the basis of their experience with HIV care in the correctional setting and their familiarity with current HIV treatment. We encourage submissions, feedback, and correspondence from our readership. The goal of HEPP News is to provide our readers with reports of effective and cost-conscious HIV care that can truly be implemented with the correctional environment. We hope our newsletter achieves that goal.

EDITORS

Anne S. De Groot, M.D.
*Director, TB/HIV Research Lab,
Brown University School of Medicine*
Frederick L. Altice, M.D.
*Director, HIV in Prisons Program,
Yale University AIDS Program*

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 antiretroviral therapy which is not addressed by the FDA.

Hepp News is grateful for the primary support of Agouron Pharmaceuticals through an unrestricted educational grant and the additional support of Roche Pharmaceuticals and Glaxo Wellcome.

Prevention and Treatment of HIV/AIDS and Other Infectious Diseases in Correctional Settings: An Opportunity Not Yet Seized

Theodore M. Hammett, Ph.D.
Abt Associates Inc.

Correctional health care providers manage the care of a large number of individuals with communicable diseases in the U.S. A major portion of the nation's Hepatitis B&C, HIV, STD and TB infected patients pass through prison and jail doors (see Heppigram). Moreover, many of these individuals also have other co-morbid conditions such as psychiatric illnesses, substance abuse and chronic medical conditions that thwart an integrated care approach for these patients in community settings.

Within correctional populations, moreover, women and people of color are much more heavily affected than men and Caucasian inmates. For instance, in most geographical areas, the prevalence of HIV among women prisoners is twice that found among male prisoners. Similar to findings in community-derived studies, people of color are disproportionately affected by all communicable diseases, however this phenomenon is magnified within our correctional system.

The disproportionately high burden of disease in correctional institutions identifies an extremely important opportunity to intervene aggressively with prevention and treatment programs. Such interventions promise to benefit not only inmates themselves and their partners and families, but also the broader public health. Contrary to popular perception, correctional facilities are a part of the community. The vast majority of inmates return to our streets and neighborhoods -- more than 8 million are released from jails and prisons per year -- where they may either continue to place themselves and others at risk for infectious disease, or help to halt the linked epidemics of disease in the poor, under-served communities which are home to most of them. The nation's correctional systems, public health departments, and community based providers have not yet exploited this important public health opportunity, except in a minority of instances. While there have been improvements in recent years and many correctional administrators appear to be taking an increasingly enlightened view of health services and

disease prevention, there remains considerable room for improvement. Results of a series of national surveys of HIV/AIDS, STDs, and TB in correctional facilities elucidate the key areas of need.¹ Progress and remaining needs in several key areas are summarized below.

Substance abuse treatment

The vast majority of correctional inmates have substance abuse problems. Successful treatment and achievement of permanent sobriety normally require multiple and prolonged treatment episodes. Periods of incarceration offer important opportunities to provide substance abuse treatment and thereby increase offenders' chances of resisting relapse and avoiding recidivism.

Nevertheless, statistics from the Center on Addiction and Substance Abuse (CASA) at Columbia University reveal a serious and growing gap between the number of inmates needing drug treatment and those receiving treatment. In 1996, CASA estimated, there were 840,000 inmates in need of treatment but only 150,000 (18%) in treatment in correctional facilities.² Current drug treatment programs are rarely offered to individuals in jails or who are serving short sentences.

Treatment for HIV Disease

The 1996-1997 CDC/NIJ survey was conducted just as the new antiretroviral therapies were becoming widely available. The survey included only a limited number of questions about HIV treatment. The next round of the

Continued on page 2

What's Inside

Spotlight.....	pg 4
Expert Opinion.....	pg 5
HEPPigram	pg 6
HIV 101	pg 8
Self-Assessment Test	pg 9

Prevention and Treatment of HIV/AIDS and Other Infectious Diseases in Correctional Settings: An Opportunity Not Yet Seized

Continued from page 1

survey will examine treatment in greater detail. The responses to these questions indicate that the vast majority of state/federal and city/county correctional systems made protease inhibitors (90%, 93%) and combination therapy (90%, 90%) available to inmates. However, these results do not demonstrate that these therapies were provided to all inmates who should have been receiving them on an uninterrupted basis. Indeed, there is anecdotal evidence to suggest that there may be substantial problems with continuously available medications in at least some correctional facilities. Nor do the survey results demonstrate that inmates were being prescribed the most appropriate combination therapies. A recent study by Stadtlanders Pharmacy, which provides pharmacy services to many correctional systems, found that 52% of about 3,500 inmates whose pharmacy records were examined were receiving either "preferred" (45%) or "alternative" (7%) combinations based on currently accepted federal guidelines and more than one third were receiving either "not generally recommended" (28%) or "not recommended" (8%) regimens.³ There is clearly room for improvement in compliance with the DHHS Guidelines in treating HIV-infected inmates.

HIV/AIDS education and prevention

As of 1997, about two-thirds of correctional facilities in the U.S. were providing instructor-led HIV/AIDS education, the most basic ingredient of an education and prevention program. Moreover, while most HIV education programs covered basic information on the disease, far fewer included practical risk reduction information, such as strategies for negotiating safer sex and methods of safer injection. Only about a third were providing more intensive multi-session HIV prevention counseling programs, the type of program probably needed to help inmates initiate and sustain the difficult behavioral changes required to reduce their risks of acquiring or transmitting HIV and other infectious diseases. Finally, only 13% of prisons and 3% of jails were offering peer-based programs in which inmates provide education and prevention services to other inmates. This represents an extremely under utilized but promising and potentially very cost-effective

method of providing these services.

One definition of a "comprehensive" HIV/AIDS education and prevention program is that all of the following are provided in all of a correctional system's facilities: instructor-led education; HIV pre- and post-test counseling; peer-led programs; and multi-session prevention counseling. By this definition, only 10% of state and federal prison systems and only 5% of the 50 largest jail systems in the U.S. had a comprehensive program in 1997.

Beyond this, some may consider a "comprehensive" program to include provision of the means necessary to effectuate HIV risk reduction. Perhaps the most commonly advocated such policy is making condoms available to inmates. However, political considerations have made it extremely difficult for correctional administrators to permit condom distribution even though it is hard to deny that inmates engage in sexual activity within correctional facilities. As a consequence, only two state prison systems (Vermont and Mississippi) and four city/county jail systems (District of Columbia, New York City, Philadelphia, and San Francisco) make condoms available to inmates. This number has not changed since about 1990.

Discharge planning /community linkages

All inmates need more and better services to help them make successful transitions to the community, resist relapse to substance use, and avoid a return to high-risk behavior and criminal activity. This is especially true for inmates with HIV disease, who might benefit from a range of services including continuity of health care, stable housing, drug treatment, assistance gaining eligibility for benefits, and job training and placement services. Results of the 1996-1997 CDC/NIJ survey show that 92% of state/federal prison systems and 76% of the largest city/county jail systems were providing at least some discharge planning for inmates with HIV and AIDS. However, further analysis of the survey data reveals that while large percentages of systems were making referrals for HIV medications (82% of state/federal systems and 66% of city/county systems), drug treatment (75% and 63%), and for Medicaid and related benefits (78%, 56%), much smaller percentages were actually making appointments for inmates to receive these services in the community (31% of state/fed

eral systems and 27% of city/county systems for HIV medications, 22% and 24% for drug treatment, and 35% and 29% for benefits). Making a referral can involve simply giving an individual a list of agencies where they might apply for services with no further assistance in actually accessing the services. Making an appointment for a soon-to-be-released inmate with a specific service provider by no means guarantees that the person will show up and receive the services, but it represents an additional step in the process. Geography can be a significant obstacle to achieving a successful transition. Exemplary programs in small geographic locations in Rhode Island⁴ and Hampden County, Massachusetts⁵ successfully provide continuity of services by having local clinicians provide care both within and outside of the correctional facility. Successful models in moderate-sized geographic areas, such as in Connecticut,⁶ have adopted a transitional case management model to overcome problems associated with geography. Such programs are beginning to demonstrate salutary effects on clinical outcomes as well as on recidivism rates of inmates participating in them.

Collaboration needed

Correctional systems cannot be expected to take full responsibility for addressing the serious public health problem or exploiting the important public health opportunity represented by the related epidemics of infectious diseases in correctional facilities. Public health departments, community-based organizations such as AIDS service organizations and community-based substance abuse treatment agencies, and other community-based providers have critical roles to play as well. There is increasing collaboration among these entities, but there remain far more opportunities and needs for working together. There are differences in philosophy and priority among these organizations, to be sure, but there are also growing examples of overcoming the barriers and forging successful collaborations to provide needed services to inmates and releasees as well as to benefit the public health and serve the interests of society at large.⁷

References:

- 1 The most recent report is Hammett TM, Maruschak L, Harmon P. 1996-1997 *Update: HIV/AIDS, STDs, and TB in Correctional Facilities* (Washington, July 1999). Available online at www.ncjrs.org.
- 2 National Center on Addiction and Substance Abuse. *Behind Bars: Substance Abuse and America's Prison Population* (New York, 1998), p. 11.
- 3 Gajewski-Verbanac I, Lewis SM, Chrisman C, Rihn T, Hartman T, Vanscoy GJ. Retrospective analysis of antiretroviral treatment to guidelines in a national correctional base. Abstract #600. Abstracts of the 39th Interscience Conference on Antimicrobial Agents and Chemotherapy, San Francisco, September 26-29, 1999.
- 4 Vigilante KC, Flynn MM, Affleck PC, Stunkle JC, Merriman NA, Flanigan TP, Mitty JA, Rich JD. Reduction in recidivism of incarcerated women through primary care, peer counseling, and discharge planning. *J Women's Health* 1999 Nov 3; 8: 409-15.
- 5 Conklin TJ, Lincoln T, Flanigan TP. A public health model to connect correctional health care with communities. *Am J Public Health* 1998 Aug; 88: 1249-50.
- 6 Altice FL, Khoshnood K. *Transitional Case Management as a Strategy for Linking HIV-Infected Prisoners to Community Health and Social Services* (Project TLC). [monograph]. Connecticut Department of Public Health, 1997.
- 7 Hammett TM. *Public health/corrections collaborations: prevention and treatment of HIV/AIDS, STDs, and TB* (Washington: National Institute of Justice and Centers for Disease Control and Prevention, July 1998). Available online at www.ncjrs.org.

LETTER FROM THE EDITOR

Dear Readers,

This issue of HEPP News marks the last issue of the Millennium! I can think of no better way to end it than to emphasize the important work presented by Drs. Hammett and Greifinger on the extent of co-morbid medical conditions housed within the U.S. correctional system. This month's HeppiGram depicts some of the information provided. Dr. Hammett reviews for us the burden of HIV and the extent to which current correctional systems have succeeded in developing comprehensive programs to diagnose, treat and prevent communicable diseases within our walls.

An interview with Dr. Greifinger and the data he presented at the recent NCCHC meeting in Ft. Lauderdale, FL, provides insight into the burden of other co-morbid conditions, namely chronic diseases and psychiatric illness. These data likely represent the minimum burden of disease within the US correctional system as standardized screening methods were not used to compile the data at selected reporting sites. My hope for these data, which are to be presented to Congress, is to prompt the federal government to into a more proactive stance in integrating correctional health with our public health system.

Dr. Augustine Mekum provided an unsolicited opinion piece discussing adherence strategies within correctional systems. This is one of the most thoughtful pieces on adherence in correctional facilities I've reviewed. However it is important to recognize that one system does not work for all inmates just as one antiretroviral combination does not - the operative word is individualize! The unruly nature of medication lines (outside conditions, long lines, poor confidentiality, etc.) may make "keep on person" the best alternative in some correctional settings. Moreover, are there not other viable alternatives such as DOT until a person learns how to properly take the medications, is beyond the initial side effects and has achieved a non-detectable viral load?

Other features this month include graphics showing the prevalence of infectious disease in corrections and antiviral drug interactions. After reviewing this issue, readers should be able to list in order of prevalence which infectious diseases are seen most frequently in correctional systems, describe the burden of mental health disorders, and identify appropriate antiviral combinations. In next month's issue, we'll bring you Newton Kendig's discussion of public health and corrections collaborations, as well as a summary of the latest HIV treatment guidelines.

The end of the Millennium (the year for most of us) marks a time for major resolutions. I believe I can speak for Anne and new editor Joe Bick by saying that our resolution for the next Millennium is to keep our Newsletter up-to-date, clearly written, and arriving on time. Our mission for next year is to go international - watch for updates from Europe, Australia, and the United Kingdom! The entire staff at HEPP News wishes each of you a prosperous New Year and New Millennium!

Rick Altice, M.D.
Asst. Professor of Medicine
Director, HIV in Prisons Program
Yale University AIDS Program

HEPP News is published twelve times a year by the Brown University AIDS Program
Box G-B426 • Providence RI 02912
tel: 401.863.2180
fax: 401.863.1243
e-mail: heppnews@brown.edu

If you have any difficulties with this fax transmission please call
888.447.1906

Senior Advisory Board

Joe Bick, M.D.
California Dept. of Corrections

Roderic D. Gottula, M.D.
Society for Correctional Physicians

Theodore M. Hammett, Ph.D.
Abt Associates

Ned E. Heltzer, R.Ph., M.S.
Prison Health Services, Inc.

David Thomas, J.D., M.D.
Florida Dept of Corrections

Managers

Dennis Thomas
HIV Education Prison Project

Michelle Gaseau
The Corrections Connection

Layout

Mary Sheehan
The Corrections Connection

Promotion and Distribution

Amanda Butler
Cimon Consulting Group

Editorial Associates

Elizabeth Stubblefield
HIV Education Prison Project

Christine Mastal
The Corrections Connection

Associate Editors

Stephen Tabet,
Univ. of Washington
Division of Infectious Disease
Seattle HIVNET

Timothy P. Flanagan, M.D.
Brown University
School of Medicine

David P. Paar, M.D.
University of Texas
Medical Branch

Anne C. Spaulding, M.D.
Brown University
School of Medicine

David A. Wohl, M.D.
University of North Carolina

Betty Rider, M.A., M.S.
North Carolina Division of Prisons

Steve Szebenyi, M.D.
Albany Medical College

SAVE THE DATES

The American Correctional Association: Winter Conference

January 10 - 12, 2000
Phoenix, Arizona
Register Online:
<http://www.correctionscorp.com/aca.html>
Phone: 1-800-222-5646, ext. 1922
Fax: 1-301-918-1900

Retroconference 2000 7th Conference

January 30 - February 2, 2000
San Francisco, CA
Registration opens: November 30
Late breaker abstract deadline: January 5, 2000
More information available at: <http://www.retroconference.org/>

Ryan White CARE Act All-Title National Meeting - Making a Difference: HRSA's HIV/AIDS Programs

January 18 - 21, 2000
Washington, DC
Phone: (202) 887-0620 x14
Sponsor: Health Resources & Services
Administration (HRSA)

15th Annual Rocky Mountain Regional Conference on HIV Disease

February 18 - 19, 2000
Denver, CO
Email: cap@coloaid.org
URL: <http://www.coloaid.org>
Phone: (303) 837-0166
Fax: (303) 837-9213
CME available.

Infectious Diseases 2000

January 28 - 30, 2000, Miami, FL
Email: conferences@arhp.org
URL: <http://www.arhp.org/arhpframeconf.html>
Phone: (202) 466-3825 or (877) 444-ARHP
Fax: (202) 466-3826

Spotlight: Revealing the Need for Change: An Interview with Robert Greifinger, MD

By HEPP Staff

Robert Greifinger, MD, is a correctional health care consultant and former chief medical officer for the New York State Department of Correctional Services. One of Dr. Greifinger's many projects has been to coordinate an evaluation of the health status of prison and jail inmates for the National Commission on Correctional Health Care (NCCHC) that was funded by the NCCHC and the National Institute of Justice (NIJ). The complete report will be presented to the U.S. Congress in early 2000. Dr. Greifinger provided HEPP News and an eager audience of correctional health care providers with a glimpse of the report's findings during his presentation at the NCCHC in Ft. Lauderdale, FL and during a recent interview.

The goal of this project was to estimate the burden of disease among soon-to-be-released incarcerated individuals and to make recommendations for public health interventions. The report will provide suggestions to the federal government for improvements in health care management within correctional systems.

The report underscores a problem with which correctional providers should already be familiar: correctional facilities are coping with patients who have many undiagnosed and untreated health problems and who have had little access to health care prior to incarceration. Improved management of the many health conditions afflicting inmates will have a dramatic impact on the health care needs of the communities to which they return. Therefore, Dr. Greifinger feels that the health status of soon-to-be-released inmates is an important component of the community's health and deserves to be a targeted public health intervention.

The Extent of the Problem

Dr. Greifinger provided correctional system-reported prevalence projections of various diseases in corrections based on existing survey data.¹ Dr. Greifinger emphasizes the fact that these data are projections, and not based on actual surveys. Data were adjusted for the socioeconomic and demographic characteristics of inmates. He provided information on the burden of disease in three categories: communicable diseases, mental health conditions, and chronic illnesses.

Communicable Disease

Communicable diseases of greatest significance to correctional HIV providers include Hepatitis B and C, HIV, sexually transmitted infections (syphilis, gonorrhea, and chlamydia) and airborne diseases such as tuberculosis

Condition	Number of Annual Releases with Infection* (%) N ≈ 8,000,000	% Total US Patients with the Indicated Condition**
HIV	98,000-148,000 ^ (1.2-1.8)	13.1-19.3
Syphilis	558,000 (6.9)	N/A^^
Chlamydia	186,000 (2.3)	N/A^^
Gonorrhea	77,500 (0.9)	N/A^^
Hepatitis C (HCV)	1.4 million (17.5)	29.3-32
Hepatitis B (HBV)	155,000 (1.9)**	12.4-15
Tuberculosis	12,000 (0.1)**	35

Table 1. Communicable Diseases

Key:

*Personal communication, Robert Greifinger, December 1999. Percentages calculated by HEPP staff using the reported numbers divided by 8 million, the approximate number of total annual releases.

**Hammett TM, Harmon P, Rhodes W. *The Burden of Infectious Disease Among Inmates and Releasees from Correctional Facilities*. Prepared for the National Commission on Correctional Health Care-National Institute of Justice "Health Status of Soon-to-be-Released Inmates" Project, presented at the National Commission on Correctional Health Care Conference in Fort Lauderdale, FL, 1999.

^These numbers were qualified in Hammett's study as follows: "The large range in these numbers reflect the fact that their data are based on a combination of testing methodologies which may have different sensitivities. Moreover, sex workers and others likely at highest risk for STDs may be disproportionately represented among those released without having been screened. Thus, statistics on jail intake screening for STDs probably understate the true prevalence of STDs

among people passing through jails."

^^According to Hammett's study, there are no reliable data on the total US prevalence of these three diseases. Thus we did not attempt to calculate these percentages.

Mental Illness

The prevalence of major psychiatric disorders was 50% higher among incarcerated populations than in the community. However, some mental illnesses are still under reported in correctional settings. For example, under-diagnosed or undiagnosed conditions uncovered by this report included schizophrenia, major depression, and bipolar disorders. The prevalence of known mental health disorders among inmates currently in custody is shown in Table 2.

Table 2. Prevalence of Severe Mental Illness in Jails and Prisons*

Condition	Jails (%)	Prisons (%)
Schizophrenia	1	2.3-3.9
Major Depression	8-15	14-18
Bipolar Disorder	1.5-2.6	2-4.3

*Personal Communication, Robert Greifinger, December 1999

Compounding the problem, a high percentage of inmates with mental illness also have a co-occurring substance abuse problem. Dr. Greifinger recommended that correctional providers become familiar with the treatment of patients who carry a "dual diagnosis" (mental illness and substance abuse), the group at highest risk for recidivism.

Chronic diseases

Dr. Greifinger's project also reported on the prevalence of asthma, hypertension and diabetes (see Table 3) among inmates. He said these figures should cause correctional health providers and policy makers as well as public health planners to recognize that these conditions are highly prevalent in correctional settings.

Table 3. Prevalence of Chronic Diseases in Prisons and Jails*

*Percentages derived from Greifinger's reported numbers divided by the

Condition	Jails N=592,462	Prisons N=1,210,034	% of Total US Patients with Indicated Condition
Asthma	44,000	96,000	9
Diabetes	12,000	32,000	5
Hypertension	84,000	98,000	18.5

number of jail and prison inmates as reported in the Bureau of Justice Statistics Bulletin, *Prison and Jail Inmates at Midyear 1995*. August 1996, NCJ 161132.

The Recommendations

While the projections may be eye-opening to many, Dr. Greifinger and his colleagues hope that the report will be a catalyst for changes in correctional health care. He anticipates that the report will make a number of recommendations to Congress. For example, he suggested that Congress will need to improve surveillance of communicable diseases, mental illness and chronic disease in correctional settings. He believes the report will indicate that Congress should fund a program to develop the standards for measurement and reporting mechanisms for these diseases. The data might be housed in a national clearinghouse or database, similar to the HEDIS database for managed care. Dr. Greifinger also suggested that clinical guidelines for prisons and jails may need to be developed to reflect nationally accepted, evidenced based guidelines and have a measurement of performance against those guidelines. One example would be to use the National Institutes of Health treatment guidelines for HIV. In addition, correctional and public health professionals might be required to become familiar with the guidelines. He thought that the report would also suggest that a resource be developed to provide correctional healthcare professionals to updated treatment protocols. Ideally this database would be available on the Internet.

Dr. Greifinger also reported that the following recommendations would be featured in the report to Congress:

Expert Opinion: Arguments For and Against Directly Observed Therapy for HAART

Augustine C. Mekkam, M.D., R.Ph

Since the introduction of Protease Inhibitors (PI) into the pharmacological arsenal against the Human Immunodeficiency Virus (HIV), both the quality and the quantity of life for HIV infected persons has increased. For a patient to receive these benefits, they must be dedicated to taking any of the combination of antiretroviral drugs that now make up the so-called Highly Active Anti-Retroviral Treatment (HAART). Besides the cost of these medications, the rapid mutation rate of the virus with risks of drug resistance is reason enough to ensure rigorous adherence to the prescriptions.

In correctional facilities, the issue of adherence has often been the subject of debate between those who advocate of Directly Observed Therapy (DOT) and Keep On Person (KOP) medication. In DOT, the inmate-patient goes to the medication line for each dose of their therapy. While under KOP, several days (up to one month) supply is dispensed to the inmate to take at the proper times in the privacy of their cells. In addition to the drug resistance and cost concerns, there are also the issues of patient confidentiality and self-reliance/responsibility on both sides of the debate.

Advocates of DOT often argue that health care staff has the moral responsibility to ensure that all eligible inmate/patients on HAART adhere strictly to their prescriptions. They often worry that development of resistance is a public health issue since most of these inmates will eventually parole and risk infecting others outside the prison. Advocates of DOT are also concerned that many of the inmate/patients have limited education or comprehension of the consequences of poor compliance and hence must be given extra help in order to attain the maximum benefits of HAART. From a fiscal point of view, it is argued that non-compliant inmates waste expensive medications and, as such, DOT must be instituted to prevent wasting these medications.

The opponents of DOT advocate for KOP as the best means of delivering HAART to inmate-patients. They argue that the complexities of HAART

regimens coupled with the side effects make it inhumane to require inmates to visit the medication lines several times each day. They note that if the goal of DOT were to prevent development of drug resistance, then it would ultimately achieve the opposite effect by discouraging inmates from going to the medication lines. Another argument in favor of KOP is that patients are able to maintain their confidentiality, whereas going to "pill lines" several times daily reveals their HIV status. On a fiscal note, some argue that DOT is labor intensive and costly since it requires a nursing staff administer and note each dose of the HAART given.

Both sides of the debate have valid points and only a compromise can bridge the differences. The need for such a compromise is what led to the development of a Modified DOT system of HAART administration. Under this system, HIV positive inmates on HAART go to the medication line each morning where they are issued individually packed, one-day supplies of each medication. For the rest of the day, they do not have to return to the line. Patients self-administer the prescriptions with instructions at the appropriate times without fear of inadvertently revealing their HIV status to other inmates. Under this system, medical staffs are able to identify those inmates who are not showing up for their daily supplies of the medications. The non-adherent inmates are counseled appropriately. One disadvantage is the increased time the pharmacy has to spend packaging the medications. However, this cost in pharmacy manpower may be offset by the fact that the medication line will not need as much staffing in the afternoon and evenings as compared to the DOT system.

Although the debate is ongoing, it is believed that Modified DOT will be perceived in due course to be a positive balance which addresses patient confidentiality, ensures compliance monitoring, minimizes the risks of drug resistance. Above all, Modified DOT makes the inmates active participants in their care since they would not only be trusted to go to the medication lines each morning, but would be trusted to remember to take the medicines reliably.

Spotlight: Revealing the Need for Change: An Interview with Robert Greifinger, MD

Continued from page 4

- Establish a national vaccine program to support the implementation of nationally recommended vaccination protocols in correctional settings.
- Promote discussions in ethical decision making among correctional and health authorities to improve their approach to ethical challenges in corrections.
- Design and promote interventions to reduce obstructions to the implementation of effective public health programs in correctional facilities and the community.
- Provide incentives to prisons and jails to expand alcohol and other drug treatment programs and make these services available to inmates from admission through release.
- Support research in correctional health care including projects that emphasize creative and cost-effective options for continuity of care following release.
- Require correctional systems to adhere to nationally recognized standards for access, quality of care, quality of service and appropriate credentialing.

The report is also likely to recommend that state and local correctional agencies provide a smoke free environment, healthy diets, and vaccines

References:

1 Hammett TM, Harmon P, Rhodes W. The Burden of Infectious Disease Among Inmates and Releasees from Correctional Facilities. Prepared for the National Commission on Correctional Health Care-National Institute of Justice "Health Status of Soon-to-be-Released Inmates" Project, presented at the Meeting of the Expert Panel on Communicable Disease, June 14-15 1999, Chicago IL.

such as Hepatitis B as well as screen pregnant women for these diseases. Moreover, it suggests enhanced collaborations between with state, local, and other public health entities such as the CDC to analyze potential benefits to the community from early diagnosis of these diseases and treatment.

According to Dr. Greifinger, this project is the first accurate projection of the burden of illness among released inmates. "Correctional agencies have never been charged with the job of protecting the public's health. What we're saying is it should be part of their job. There should be a clear public mandate for a correctional institution to work with inmates in terms of the public's health in three areas: communicable disease, mental illness and chronic disease. I'm hoping this (report) will set a new standard for the expectations for the medical care of inmates in correctional institutions. This does not compete with current accreditation standards. It enhances them. We are talking about promoting new opportunities to improve health care for inmates in areas where it will have a positive effect on the community."

An audio tape copy of Dr Greifinger's presentation at the NCCHC conference can be obtained from the NCCHC by calling 773-880-1460.

HEPPigram

A feature of HEPP News providing concise solutions to correctional HIV-related problems.

Disease Among Incarcerated Populations

The following graphs show infectious disease among incarcerated populations. In 1996, there were estimated to be approximately 16,000 known HIV infected inmates and does not include the number with undiagnosed HIV infection. HIV prevalence among women and minorities is higher than among men and whites, respectively, in almost every geographical location. The first is adapted from Hammett TM, and Maruschak, LM. 1996-1997 Update: HIV/AIDS, STD's and TB in Correctional Facilities. July 1999. NCJ 176344. The second is taken from a report given at the Meeting of the Expert Panel on Communicable Disease "Health of Soon-to-Be-Released Inmates" Project. June 14-15, 1999, Chicago, IL. See the Spotlight, Table 1 for numbers.

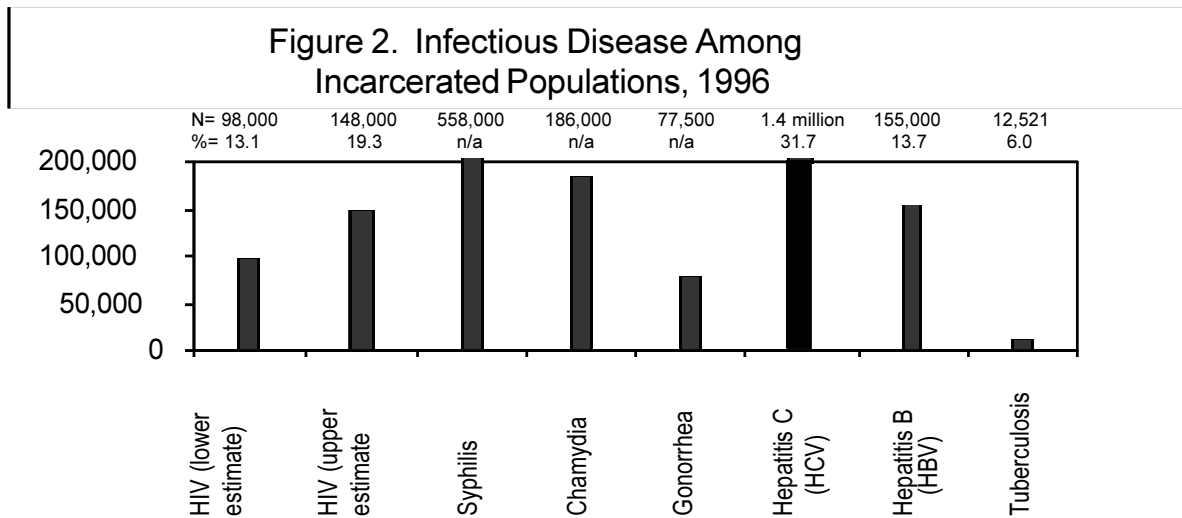
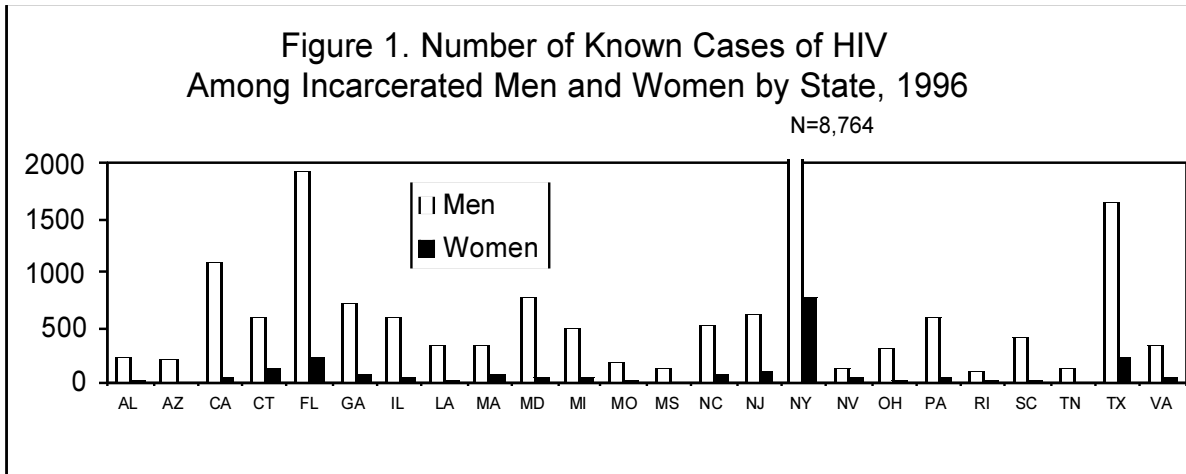


Figure 2. This figure shows the number of inmates with selected infections. The percentages are the percent of the total US patient population infected with the indicated disease that passed through correctional facilities in 1996.

RESOURCES

Amfar's HIV/AIDS Treatment Directory

A new Web site provides up-to-date information on approved and experimental HIV therapies for doctors and patients. Located at www.amfar.org/td, the site includes a searchable database of clinical trials of experimental treatments. Also on the Web site is a tool that helps determine the programs that may be best for a patient.

Telephone Numbers:

National Clinicians PEP Hotline:
888. 448. 4911

National HIV Telephone Consultation Service:
800. 933. 3413

Websites:

HIV/AIDS Treatment and Information Services (HIVATIS) webpage
<http://www.thebody.com/hivatis/agents/agents01.html>

The Bureau of Justice Statistics
<http://www.ojp.usdoj.gov/bjs>

JAMA HIV/AIDS Information Center
<http://www.ama-assn.org/special/hiv>

CDC HIV/AIDS Statistics
http://www.cdc.gov/nchstp/hib_aids/stats/hasr1001.pdf

The Corrections Connection
<http://www.corrections.com>

News Flashes

UNAIDS and WHO: HIV/AIDS Cases will Continue to Rise

On December 1, the last World AIDS Day of this millennium, it seemed appropriate to read the *Lancet's* report on the UNAIDS and WHO predictions for HIV/AIDS in the next century. At the close of 1999, UNAIDS and WHO estimate that 32.4 million adults and 1.2 million children will be living with HIV/AIDS. This past year saw the highest global total of deaths than any other year of the epidemic: 2.6 million children and adults died from AIDS in 1999. (Haroon A. *Lancet*. Nov 27 1999; 354: 1886.)

Peer HIV Education Programs in Corrections

Three articles in the last issue of the *Journal of the Association of Nurses in AIDS Care* addressed recent findings concerning HIV care and inmates. A study conducted in a medium-to-maximum security prison in the rural South revealed that among 57 newly incarcerated women there is a high prevalence of domestic violence, three or more sexual partners (10%) and unprotected sex during every encounter within the previous month (72%). Nearly all (97%) reported illicit drug use as well as sex with an injection drug user, yet more than half thought they had little or no risk for HIV infection or other sexually transmitted infections. Limited prevention programs were available for them at the time of discharge to the community. (Fogel C, Belyea M. *J Assoc Nurses in AIDS Care*. 12/99; 10(6) 66.)

Another article in the the same issue advocates peer education for prisoners and asserts that nurses have a responsibility for assisting in the design and deployment of such programs. An ideal peer education program curriculum should carefully select inmate peers after considering their prison sentence, the type of offense committed, gender and race/ethnicity. Minimal curriculum must incorporate a basic understanding HIV/AIDS, issue of its origins, including conspiracy theory, and facilitate discussion using commonly used vocabulary terms. (Dubik-Unruh S. *J Assoc Nurses in AIDS Care*. 12/99; 10(6) 53.)

An additional article spotlights ACE, a peer support program for female prisoners with HIV/AIDS. The AIDS Counseling and Education Program (ACE) helps with the crisis at Bedford Hills Correctional Facility, New York State's maximum security prison for women. The ACE program educates inmates about preventing HIV, provides supportive counseling, and uses community groups to facilitate women's re-enter to society. It also encourages adherence with anti-retroviral therapy. (Boudin K, Carrero I, Clark J. et al. *J Assoc Nurses in AIDS Care*. 12/99; 10(6) 90.)

OSHA/CDC Urge the use of Safety Needles

The CDC has urged health facilities to use specially designed safety needles to protect health care workers (HCWs) from accidental needle stick injuries. The notice comes just

weeks after the Occupational Safety and Health Administration authorized its inspectors to issue citations to health care facilities that fail to use the safer needles. The FDA has already approved 50 safety needles and syringes, including those that have retractable needles, syringes with protective sheaths and vaccine injectors that use pressure rather than a needle to deliver medication. It is estimated that the use of safety needles would reduce the injuries by 80% among the 600,000 annual needlestick injuries to HCWs. Unfortunately, only 15% of hospitals currently use safety needles. Three states (CA, MD, TN) currently legislate mandatory use of safety needles and 20 others are considering similar legislation. Cost is cited as a barrier to safety syringe use which cost to \$.25 compared to \$.06 per routine needle. (Press release, November 23, 1999. Full article available at:

<http://www.cdc.gov/od/oc/media/pressrel/r991123.htm>). Editor's note: OSHA's standards presumably apply in the correctional setting.

HIV Plus: Prison Issue

HIV Plus, the largest-circulation HIV magazine in the US, has produced a special comprehensive issue on prisons. *HIV Plus* is distributed free to AIDS service providers. For a single copy, fax request to 212.334.9227 or call 212.625.0897. For bulk orders (25+) call 212.334.9119 ext.42. Also available at www.aidsinfonyc.org/hivplus.

SUBSCRIBE TO HEPP NEWS

FAX TO 800.671.1754 FOR ANY OF THE FOLLOWING: (please print clearly or type)

- Yes, I would like to add/update/correct (circle one) my contact information for my complimentary subscription of HEPPNews fax newsletter.
- Yes, I would like to sign up the following colleague to receive a complimentary subscription of HEPPNews fax newsletter.
- Yes, I would like to order the following back issues (please include volume/issue/date).
- Yes, I would like my HEPP News to be delivered as an attached PDF file in an e-mail (rather than have a fax).

NAME: _____

CHECK ONE: Physician Physician Assistant Nurse Practitioner Nurse/Nurse Administrator
 Pharmacist Medical Director/Administrator HIV Case Worker/Counselor Other

FACILITY: _____ (Optional) # of HIV Infected Inmates: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

FAX: _____ PHONE: _____ E-MAIL ADDRESS: _____

SIGNATURE: _____ DATE: _____

Continued from October: Part 2: Drug Interactions: Protease Inhibitors and Non-nucleoside Reverse Transcriptase Inhibitors
Effect of Drug on Levels (AUCs)/Dose (Adapted from HIVATIS webpage: www.thebody.com/hivatis/agents/agents01.html)

Drug Affected	Ritonavir	Saquinavir *	Nelfinavir	Amprenavir	Nevirapine	Delavirdine	Efavirenz
Indinavir (IDV)	Levels: IDV up 2-5X Dose: Limited data for IDV 400 mg bid, RTV 400 mg bid, or IDV 600 mg bid RTV 200 mg bid, or IDV 800 mg bid, RTV 100 mg bid	Levels: IDV no effect; SQV up 4-7x# Dose: higher doses may be antagonistic^	Levels: IDV up 50%; NFV up 80% Dose: limited data for IDV 1200 mg bid NFV 1250 mg bid	Levels: APV up 33% (750 mg bid) IDV down 38% Dose: No Data May need to up IDV dose	Levels: IDV down 28% NVP no effect Dose: Standard	Levels: IDV up 40% Dose: IDV 600 mg q 8h	Levels: IDV down 31% Dose: IDV 1000mg q 8h
Ritonavir (RTV)		Levels: RTV no effect; SQV up 20x**# Dose: Invirase or Fortovase 400 mg bid ** RTV: 400 mg bid	Levels: RTV no effect; NFV up 1.5x Dose: limited data for RTV 400 mg bid NFV 500-750 mg bid	Forthcoming data to be presented at the Retrovirus Conference February 2000.	Levels: RTV down 11% NVP no effect Dose: Standard	Levels: RTV up 70% Dose: No data	Levels: RTV up 18% EFV up 21% Dose: RTV 600 mg bid (500 mg bid for intolerance)
Saquinavir (SQV)	see under SQV column		Levels: SQV up 3-5x; NFV up 18% # Dose: Standard NFV ; FTV 1200 tid	Levels: APV down 32% SQV up 20% Dose: No Data	Levels: SQV down 25% NVP no effect Dose: No Data	Levels: SQV up 5x,** DLV no effect Dose: Fortovase 800 mg tid, DLV standard (monitor transaminase levels)	Levels: SQV down 62% EFV down 12% co-administration not recommended
Nelfinavir (NFV)	See under NFV column	See under NFV column		Levels: No change in APV NFV up 15% Dose: standard	Levels: NFV up 10% NVP no effect Dose: standard	Levels: NFV up 2x DLV down 50% Dose: no data (monitor for neutropenic complications)	Levels: NFV up 20% Dose: Standard
Nevirapine (NVP)	see under NVP column	see under NVP column	see under NVP column	No Data - May reduce APV levels		No Data	No Data
Delavirdine (DLV)	see under DLV column	see under DLV column	see under DLV column	No Data - May increase APV levels	No Data__		No Data / APV-EFV no data, may reduce APV

* Several drug interaction studies have been completed with saquinavir given as Invirase or Fortovase. Results from studies conducted with Invirase may not be applicable to Fortovase.

** Conducted with Invirase.

Conducted with Fortovase (FTV).

^ A test tube study published in the July issue of the Journal of Infectious Diseases showed that low doses of saquinavir and indinavir appeared to work together to inhibit HIV replication. However, as the doses increased the two drugs appeared to work against each other, counteracting their combined antiviral effects against the virus. The scientists involved with the study were concerned that using these two protease inhibitors together could increase the chances of the virus developing resistance to both drugs.

Subscribe to HIV Inside

A new quarterly newsletter addressing HIV-management issues specific to correctional care.

If you are interested in receiving this free publication, please fill out the form below. In addition to receiving *HIV Inside*, this contact information will be entered into an HIV-management database, allowing additional education materials to be forwarded.

Name _____

Title _____

Agency/Facility _____

Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____

Fax back to Brendan Maney at World Health CME at 212.481.8534

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 January 31, 2000. The estimated time for completion of this activity is one hour and there is no fee for participation in this activity.

- Hepatitis C prevalence in corrections is what fraction of the total US population infected with HCV?
 - 1/8
 - 1/6
 - 1/5
 - 1/4
 - 1/3
- According to Robert Greifinger, the most prevalent communicable diseases in correctional facilities include the following. Rank these diseases in order of prevalence in prisons.
 - Hepatitis B
 - Hepatitis C
 - HIV
 - sexually transmitted diseases (syphilis, gonorrhea, and chlamydia)
 - airborne diseases such as tuberculosis

ranking: highest lowest
- Which of the following statements is false?
 - Schizophrenia is more prevalent in corrections than bipolar disorders.
 - Overall, the presence of major psychiatric disorders is 50 percent higher in corrections populations than in the community.
 - Prevalence of mental illness in prisons is about twice that in jails.
- Review the following drug combinations, and select the choice (a to e) that is most accurate. Which of the following antiretroviral combinations, in combination with other antiretroviral agents, might be appropriate for use in patients with HIV infection?
 - Ritonavir 200 mg BID + Indinavir 800mg BID (4 pills twice daily)
 - Nelfinavir 1250 mg BID + Fortovase 1200 mg BID (11 pills twice daily)
 - Fortovase 1200 mg TID + Efavirenz 600 mg QHS (21 pills per day in divided doses)
 - Indinavir 1200 mg BID + Nelfinavir 1250 mg BID (8 pills twice daily)

- Choose from among the following:
- Only one of the choices above is accurate.
 - Only I and III
 - Only II and IV
 - Only three of the choices above are accurate
 - All of the above are accurate
- Ritonavir may increase the level of multiple antivirals. When combined with Ritonavir, which of the following antivirals require a dosage adjustment when give in combination with RTV?
 - Saquinavir
 - Nelfinavir
 - Nevirapine
 - a and b
 - all of the above
 - Which of the following statements is false?
 - Peer education is a cost effective HIV prevention strategy.
 - The majority of prisoners with substance abuse disorders receive drug treatment within the correctional setting.
 - The majority of prisoners with HIV infection are men.
 - Hepatitis C is the most prevalent of infectious disease within corrections.
 - Though most prison systems make preferred combination therapy available, as many as one-third do not receive recommended combinations.

HEPP News Evaluation

5 Excellent 4 Very Good 3 Fair 2 Poor 1 Very Poor

1. Please evaluate the following sections with respect to:

	educational value	clarity
main article	5 4 3 2 1	5 4 3 2 1
secondary article	5 4 3 2 1	5 4 3 2 1
HEPPigram	5 4 3 2 1	5 4 3 2 1
updates	5 4 3 2 1	5 4 3 2 1
save the date	5 4 3 2 1	5 4 3 2 1

- Do you feel that HEPP News helps you in your work? Why or why not?
- What future topics should HEPP News address?
- How can HEPP News be made more useful to you?

BROWN UNIVERSITY SCHOOL OF MEDICINE • OFFICE OF CONTINUING MEDICAL EDUCATION • BOX G-A2 • PROVIDENCE, RI 02912

The Brown University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education activities for physicians. This activity has been planned and implemented in accordance with the Essentials and Standards of the ACCME.

The use of the Brown University School of Medicine name implies review of the educational format and material only. The opinions, recommendations and editorial positions expressed by those whose input is included in this bulletin are their own. They do not represent or speak for the Brown University School of Medicine.

**For Continuing Medical Education credit please complete the following and mail or fax to 401.863.2660
Be sure to print clearly so that we have the correct information for you.**

Name _____ Degree _____

Address _____

City _____ State _____ Zip _____

Telephone _____ Fax _____