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HEPP Report: Infectious Diseases in Corrections, Vol. 6 No. 10

HIV & Hepatitis Education Prison Project

HEPP REPORT

HIV & HEPATITIS EDUCATION PRISON PROJECT

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INFECTIOUS DISEASES IN CORRECTIONS

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HEPP Report, a forum for correctional problem solving, targets correctional physicians, nurses, administrators, outreach workers, and case managers. Published monthly and distributed by email and fax, HEPP Report provides up-to-the moment information on HIV/AIDS, hepatitis, and other infectious diseases, as well as efficient ways to administer treatment in the correctional environment. Continuing Medical Education credits are provided by the Brown University Office of Continuing Medical Education. HEPP Report is distributed to all members of the Society of Correctional Physicians (SCP) within the SCP publication, CorrDocs (www.corrdocs.org).

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HIV-associated Opportunistic Infections in Adults and Adolescents in the Era of HAART

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Prior to the advent of Highly Active Antiretroviral Therapy (HAART) in 1996, opportunistic infections (OIs) were an inevitable complication of HIV infection, particularly in those patients with a CD4 count of less than 200 cells/mm^3. Because of the considerable morbidity and mortality associated with OIs, medical research identified and developed drugs that were active against many of the infections that complicate AIDS. Carefully designed OI prophylaxis and treatment trials resulted in major advances in the management of OIs. Although OI trials continue to build on this foundation of knowledge, the focus of HIV clinical research has shifted to antiretroviral therapy since HAART can prevent and/or reverse the immunological abnormalities that lead to the development of OIs.

Carefully designed OI prophylaxis and treatment trials resulted in major advances in the management of OIs.

With the introduction of HAART, HIV-infected individuals have experienced declining rates of HIV-related deaths. However, there are some notable differences between the U.S. general population and those who are incarcerated. For the year 2000, the overall rate of confirmed AIDS cases in state and federal prisons was four times that of the general population.[1] As a result, correctional health care workers are more likely to encounter OIs in their HIV-infected populations than will health care professionals working outside of jails and prisons. This month's main article focuses on new trends and clinical concepts in the occurrence of OIs that have accompanied effective antiretroviral therapy, as well as up-to-date information on prophylaxis and treatment of OIs.

An Overview of Opportunistic Infections

Since the introduction of HAART, there has been a dramatic decline in both the number of deaths due to AIDS and new diagnoses of AIDS. Overall, this has resulted in an increasing number of patients living with AIDS.[2] Despite the increased number of AIDS cases, the overall incidence of OIs has declined in patients receiving HAART and appropriate preventive therapy for OIs. This reflects both the widespread use of effective preventative treatments for common OIs, and the effectiveness of HAART in preventing profound immunosuppression in those with HIV infection.

OIs may occur as an acute presentation of previously undiagnosed HIV infection or may complicate the course of known HIV infection. Instituting an appropriate antimicrobial based on the patient's CD4 count can reliably prevent certain OIs. Table 1 summarizes the infections, CD4 thresholds, and agents for primary (instituted prior to the occurrence of active disease) and secondary (instituted after the an episode of active disease to prevent recurrences) prevention of OIs.[4]

A full description of the presentation, clinical course, methods of diagnosis, and treatment of each OI is beyond the scope of this article; however, it is important for HIV providers to have a quick and reliable source of prevention and treatment information on hand. Some useful pocket guides are: The Sanford Guide to HIV/AIDS Therapy[4] (published yearly) and Medical Management of HIV Infection, (2003).[7] Online sources of treatment information can be found at http://www.AIDSinfo.nih.gov (formerly, http://www.hivatis.org).[4,5]

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Some OIs require secondary prophylaxis to prevent recurrence. Secondary prophylaxis is usually a continuation of the medications used to treat the OI, sometimes at reduced dosages. For example, disease due to disseminated MAC can be primarily prevented with azithromycin 1200 mg po once per week. If active disease develops, the treatment regimen consists of a combination of at least two drugs. Secondary prophylaxis must be maintained for an indefinite period of time in order to prevent recurrence of the infection.

In the pre-HAART era, the infectious agent of many OIs could not be eliminated from the body by a discrete course of treatment because of severe underlying immunodeficiency. Therefore, therapy had to be maintained for an indefinite period, often lifelong. In the era of HAART, the continued need for primary or secondary prophylaxis is determined by the degree of immune reconstitution.

Immune Reconstitution

The immunodeficiency that is associated with untreated HIV infection is complicated and leads to both a decline in CD4 cell numbers and to impairments in CD4 cell function. CD4 cells may lose the ability to respond to many foreign antigens, and these responses are lost in a somewhat predictable sequential fashion. For example, the ability to respond to Pneumocystis carinii antigens is lost well before the ability to respond to herpesvirus antigens or CMV antigens. Thus, serious herpesvirus and CMV infections generally occur later in HIV disease than PCP.

When viral replication is suppressed in response to HAART, the initial rise in CD4 cells that occurs in the first one to three months is largely due to a redistribution of CD4 cells from the reticuloendothelial system and other tissue reservoirs. If HAART is not initiated until severe CD4 cell depletion has occurred, the CD4 cells that make their way back into the circulation may not have the ability to respond to common antigens. As a result of CD4 cell redistribution, immediate exacerbations of pre-existing, subclinical OIs such as CMV retinitis or tuberculosis may occur as the newly circulating CD4 cells respond to these pathogens. These redistributed CD4 cells may cause inflammatory responses to pathogens that were previous-

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TABLE 1: Primary Prophylaxis for AIDS-associated OIs*

Pathogen	CD4 Count (cells/mm3)	First-line Prophylaxis	Alternatives	Comment
Pneumocystis carinii	< 200	Trimethoprim-sulfamethoxazole (TMP-SMX) DS 1 po qd	TMP-SMX SS 1 po qd; dapsone 100 mg po qd; aerosolized pentamidine 300 mg po q month; atovaquone 1500 mg po qd	Patients may tolerate oral TMP-SMX at prophylactic doses even if rash or other side effects occurred with higher doses.
Toxoplasma gondii	< 100	TMP-SMX DS 1 po qd	TMP-SMX SS 1 po qd; dapsone 100 mg po qd + pyrimethamine 50 mg po q week + folinic acid 25 mg po q week	Some clinicians omit folinic acid if significant leucopenia is not present at baseline.
Mycobacterium avium-intracellulare	< 50	Azithromycin 1200 mg po q week or clarithromycin 500 mg po bid	Rifabutin 300 mg po qd *Note: contraindicated with some ARVs; dose adjustment may be needed with others*	Azithromycin powder, 1000 mg sachet dissolved in H_20 is used in TX D.O.C. and is effective and less expensive than 1200 mg dose.
Cytomegalovirus retinitis (CMV)	< 50	Valganciclovir 900 mg po qd	Oral ganciclovir 1000 mg po tid	Most clinicians observe for CMV retinitis or institute prophylaxis based on positive serum PCR for CMV.
Candida species, cryptococcus neoformans	< 50	Fluconazole 100-200 mg po qd		Routine prophylaxis is not recommended; may be instituted if recurrent thrush, vaginitis, or esophagitis.
+ PPD-tuberculin skin test (> 5 mm), or exposure to M. tuberculosis	Any CD4 count	INH 5mg/kg po qd + pyridoxine 50 mg po qd x 9 months or INH 15 mg/kg po + pyridoxine 100 mg po twice weekly for 9 months. DOT is preferred method of administration	INH 5mg/kg po qd + pyridoxine 50 mg po qd x 6 months Either rifampin 600 mg po or rifabutin 300 mg po qd x 4 months Rifampin may be contraindicated with some ARVs, rifabutin may be substituted	Two-month course of PZA + rifampin or rifabutin has resulted in significant liver injury, prompting CDC to recommend q 2-week laboratory monitoring if this regimen is used. Consider DOT and dispensing only 2 weeks worth at a time
		www.cdc.gov/mmwr/preview/mmwrhtml/mm4909a4.htm www.cdc.gov/hiv/pubs/mmwr/tb.htm www.cdc.gov/mmwr/preview/mmwrhtml/00044186.htm		

**Adapted from The Sanford Guide to HIV/AIDS Therapy, 2003*

Letter from the Editor

Dear Correctional Colleagues:

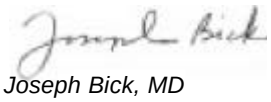
As AIDS therapy marches into the new millennium, we have witnessed a dramatic decrease in AIDS mortality and a corresponding increase in the number of patients living with AIDS. There is no doubt that Highly Active Antiretroviral Therapy (HAART) has benefited HIV-infected persons over the years, however the number of AIDS cases is still high and opportunistic infections (OIs) are still a common occurrence, particularly in the correctional population.

This month's lead article by Dr. David Paar discusses new trends and clinical concepts in the occurrence of OIs that have accompanied effective antiretroviral therapy. This informative review provides up-to-date information on prevention and treatment of OIs. Immune reconstitution - a concept that often receives too little attention in HIV-disease research - is given its due by Dr. Paar in his accessible explication of immunotherapeutic strategies that can be used following HAART-associated immune reconstitution. A review of correctional-specific issues surrounding prevention and treatment of OIs, as well as educational initiatives in jails and prisons, is a keen reminder that education is a continuous process, often most effective when delivered in tailor-made and creative ways.

In the Spotlight for October Ms. Abby Dees provides timely discussion of clustering in U.S. correctional facilities. This article weighs the pros and cons of the practical aspects of segregating HIV-infected inmates and describes the areas of law that address this delicate and litigious issue.

After reading this month's issue you should be more familiar with the prevention and treatment of OIs since the advent of HAART, concepts in immune reconstitution and the subtleties of multi-drug resistant tuberculosis. Next month's HEPP Report will feature comprehensive coverage of the ICCAAC (Interscience Conference on Antimicrobial Agents and Chemotherapeutics), the 41st Annual Meeting of the IDSA (Infectious Diseases Society of America), the NCCHC (National Conference on Correctional Healthcare), and the CEECDISP (Central and Eastern European Conference on Drug Infection Services in Prison).

Sincerely yours,



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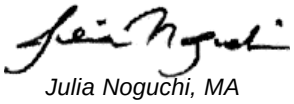

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In accordance with the Accreditation Council for Continuing Medical Education Standards for Commercial Support, the faculty for this activity have been asked to complete Conflict of Interest Disclosure forms. Disclosures are listed at the end of articles. All of the individual medications discussed in this newsletter are approved for treatment of HIV and hepatitis unless otherwise indicated. For the treatment of HIV and hepatitis infection, many physicians opt to use combination antiretroviral therapy which is not addressed by the FDA.

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ly present. These reactions are called immune reconstitution syndromes.

Following the initial increase in CD4 cells attributed to redistribution, there is a more gradual and sustained increase in these cells due to the emergence of naïve CD4 cells that have the ability to develop a full array of immune responses to various foreign antigens. This differentiation of cells takes time, which is why recommendations regarding stopping prophylaxis for various OIs is based not only on a rise in CD4 numbers to certain thresholds, but also a period of sustained increase that allows the naïve cells to develop into clones that can respond to specific foreign antigens (Table 2).[7]

Tuberculosis

The Official Joint Statement for the Treatment of Tuberculosis of the American Thoracic Society, CDC, and the Infectious Diseases Society of America was approved in October 2002, published in 2003[6,8] and may be accessed through the CDC website (www.cdc.gov). Treatment regimens for tuberculosis are summarized in Table 3. For a more complete discussion of the diagnosis, prevention, and treatment of tuberculosis, refer to the February 2003 issue of *HEPP Report*.

Correctional-Specific Issues Relative to the Prevention and Treatment of OIs

Educational efforts are most effective when they are tailored to the population being served. For incarcerated HIV-infected patients, this includes being aware of literacy skills, English language competency, and cultural beliefs about disease and medical treatment. Education can be provided in many ways, including verbally from the treating clinician, in written form via handouts, in video format in clinic waiting areas or over the facility television system, and through peer-to-peer teaching.

The most successful approach integrates multiple strategies, and reinforces the message at each patient encounter. Asking the patient to name all of his or her medications (and the reason that s/he takes them) at each visit is one helpful way to assess patient knowledge.

Self-Administered Keep On Person (KOP) vs. Directly Observed Therapy (DOT)

There are compelling reasons to utilize both DOT and KOP methods of medication delivery (see Table 4). Each facility should evaluate these and other factors and come to a decision that best meets the needs of their program and patient population. One hybrid option is to start all patients on DOT, and then offer KOP to those who 1) demonstrate adherence by maintaining an undetectable HIV viral load over time, and 2) are able to correctly describe their medications and dosing schedule.

Quality Review

The provision of quality care to HIV-infected patients demands careful attention to detail. Multi-drug regimens, the potential for drug-drug interactions, and the necessity of close monitoring of laboratory data can overwhelm any paper record system. The use of a computerized database can enable clinicians to rapidly review HAART regimens, detect potential adverse interactions, and track those patients who are candidates for initiating or discontinuing OI prophylaxis. An upcoming issue of HEPP Report will review some of the software programs that are currently in use in major correctional health care systems nationwide.

Summary

The incidence of AIDS and AIDS-associated deaths and diagnoses in the U.S. has declined significantly in both the general population and the correctional population due to the introduction of HAART in clinical HIV practice. Nonetheless, the number of AIDS cases is high and OIs are still a common occurrence. In the correctional population, OIs occur more frequently than in the general U.S. population. Many OIs can be prevented with the appropriate preventive therapy. When OIs do occur, various treatment regimens are effective; however secondary prophylaxis is often indicated unless

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TABLE 2: OIs for which prophylaxis or maintenance therapy can be discontinued following HAART-associated immune reconstitution*

Opportunistic Infection	Immune Reconstitution Parameter and Comment
PCP	Prophylactic or preventive therapy can be safely stopped when CD4 count rises to > 200 cells/mm^3 for at least 3 consecutive months.
MAI or MAC	Primary MAC prophylaxis can be discontinued in patients who have responded to HAART and have an increase in CD4 cells to > 100 cells/mm^3. Secondary prophylaxis can be discontinued after 12 months of successful therapy and when there is an increase in CD4 cells to > 100 cells/mm^3 for > 6 months.
Cryptococcal disease	Following an initial successful course of therapy and in the absence of symptoms attributable to cryptococcal disease, maintenance therapy can probably be stopped when there has been a sustained increase in CD4 cells to 100-200 cells/mm^3 for at least 6 months. Some, but not all, experts recommend performing LP and demonstrating negative culture prior to discontinuing maintenance therapy. Reinitiate maintenance if CD4 count falls below 100-200 cells/mm^3.
Toxoplasmic encephalitis	Primary prophylaxis can be discontinued when CD4 count rises to > 200 cells/mm^3 for at least 3 consecutive months. Following an initial successful course of therapy and in the absence of symptoms attributable to toxoplasmic encephalitis, maintenance therapy can probably be stopped when there has been a sustained increase in CD4 cells to > 200 cells/mm^3 for > 6 months. Some experts recommend that MRI scanning be done to aid in the decision to stop chronic maintenance therapy. Resume maintenance if CD4 falls below 200 cells/mm^3 .
CMV retinitis	Maintenance therapy can be discontinued safely in patients whose CD4 cells have shown a sustained increase to > 100-150 cells/mm^3 for > 6 months.

**Adapted from 2001 USPHS/IDSA Guidelines for the Prevention of Opportunistic Infections in Persons Infected with Human Immunodeficiency Virus.*

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the immune system becomes reconstituted in response to HAART. TB disease is especially problematic in the correctional setting because of the risk of transmission to others, the occurrence of drug-resistant strains of Mycobacteria tuberculosis and the potential interactions between anti-tuberculosis and antiretroviral medications.

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TABLE 3: Drug Regimens for Treatment of Culture Positive Pulmonary Tuberculosis*

INITIAL PHASE			CONTINUATION PHASE		
Regimen	**Drugs**	**Interval and doses#** *(minimal duration and range of doses)*	**Regimen**	**Drugs**	**Interval and dosages#** *(minimal duration and range of doses)*
1	INH RIF PZA EMB	Seven days per week for 56 doses or 5 days per week for 40 doses.	1a	INH/RIF	Seven days per week for 126 doses or 5 days per week for 90 doses (18 weeks).
			1b &	INH/RIF	Twice weekly for 36 doses (18 weeks).
			1c%	INH/RPT	Once weekly for 18 doses (18 weeks).
2	INH RIF PZA EMB	Seven days per week for 14 doses then twice weekly for 12 doses or 5 days per week for 10 doses then twice weekly for 12 doses.	2a &	INH/RIF	Twice weekly for 36 doses (18 weeks).
			2b%	INH/RPT	Once weekly for 18 doses (18 weeks).
3	INH RIF PZA EMB	Three times weekly for 24 doses.	3a	INH/RIF	Three times weekly for 54 doses (18 weeks).
4	INH RIF EMB	Seven days per week for 56 doses or 5 days per week for 40 doses.	4a	INH/RIF	Seven days per week for 217 doses or 7 days per week for 155 doses (31 weeks).
			4b	INH/RIF	Twice weekly for 62 doses (31 weeks).

**Adapted from Treatment of Tuberculosis, American Thoracic Society, CDC, and Infectious Diseases Society of America[6,8]*
abbreviations of drugs: INH = isoniazid; RIF = rifampin; RPT = rifapentine; PZA =pyrazinamide; EMB = ethambutol.
 # When directly observed therapy (DOT) is used, drugs may be given 5 days per week and number of dosages adjusted accordingly.
$ Patients with cavitation on initial chest radiograph and positive cultures at completion 2 months of initiation should receive a 7-month continuation phase at either daily or twice weekly dose interval.
& Not recommended for HIV positives with a CD4 cell count < 100 cells/mm^3
% Not recommended for HIV positives or HIV negatives or for HIV negatives who do not have negative sputum smears at the end of initiation or who have cavitation of initial chest radiograph.

TABLE 4: Self-Administered Keep On Person (KOP) vs. Directly Observed Therapy (DOT)

Keep On Person	Directly Observed Therapy
+ Increases patients' autonomy	+ Easier to assess accurately adherence
+ Less staff-intensive	+ Better for forgetful patients
+ Educates patient for parole or discharge	+ Less potential for waste
+ More confidential?	+ More staff intensive
- More difficult to assess adherence accurately	- Patients may not learn to be self-sufficient
- Not as good for forgetful patients	- Some patients won't take medications because they don't want to stand in line
- Potential for increased waste	- Less confidential?

Ask the Expert: CASE STUDY - Multi-drug Resistant Tuberculosis

By Tanvir K. Bell, M.D.*

CASE: *A 35-year-old female prisoner presented to the infirmary with a complaint of fever and 22-pound weight loss. She denied cough, nausea, emesis, headache, diarrhea, skin rash, or recent change in medication. She stated that she had received treatment for tuberculosis several times over the past ten years, none by directly observed therapy (DOT). She states that she has never completed more than six consecutive months of treatment.*

The patient's examination was notable for wasting, thrush, and a purulent cervicitis. Her chest x-ray demonstrated right hilar adenopathy. Laboratory results revealed a hemoglobin of 10.8, WBC of 2900 with lymphocytopenia, and serum albumin of 2.9. A urinalysis revealed 25 white blood cells, and 10 red blood cells. The patient was placed in the infirmary and treated with ceftriaxone and azithromycin.

Blood and urine cultures were negative. A urine specimen was positive for chlamydia and gonorrhea by ligase chain reaction. A HIV antibody test was strongly reactive, and a CD4 count was 27/mm. Three sputum smears were negative for AFB. On the twelfth day, growth in broth was detected for one out of three specimens. A gene probe for tuberculosis was positive. Because of the patient's history of multiple prior incomplete courses for therapy for TB, she was started on five drugs (INH, rifampin, PZA, ethambutol, and ofloxacin). After seven weeks, the susceptibility report was received demonstrating resistance to both INH and rifampin. Her regimen was changed to include four drugs to which her isolate was susceptible, administered by strict DOT.

DISCUSSION: Human Immunodeficiency Virus (HIV) increases the risk of reactivating latent Mycobacterium tuberculosis (MTB) and also increases the risk of rapid MTB progression. The presentation of tuberculosis in the HIV-infected patient is variable. Radiographic findings are often atypical in that they may not demonstrate classic upper lobe cavitary lesions. In some series, the most common chest x-ray finding is hilar fullness without infiltrate.

MTB infection may lead to significant morbidity and mortality, yet it is a preventable and treatable disease. Multi-drug resistant tuberculosis (MDR TB) is defined as MTB that is resistant to at least isoniazid and rifampin. MDR TB is often more challenging to treat, and is more likely to be fatal.

The percentage of tuberculosis cases in the United States due to MDR TB increased from 2% to 9% in the 1990s. Resistance is not uniformly distributed, but is more common in large urban areas and coastal or Southern border communities. In Los Angeles, one survey revealed that resistance rates were higher for Hispanics, Asians, and Blacks than for Whites. Southeast Asian countries have a higher prevalence of MDR TB than do African countries. Among immigrants from endemic areas, the risk of MDR TB is greatest during the first few years after immigration and then decreases to a rate similar to that seen in general population. Epidemics of MDR have been described among those with Human Immunodeficiency Virus (HIV) infection as well as those without HIV or AIDS. Epidemics have also been described in nosocomial settings. In a group of 62 patients with MDR TB in Florida, risk factors among those with HIV infection included homosexuality, AIDS, and previous hospitalization on an inpatient HIV ward. The median survival for AIDS patients during this outbreak was 1.5 month vs. 14.8 months for HIV-infected patients without AIDS.

MDR mutants occur as a result of failure to kill random preexisting mutations. A mutant can occur as a consequence of monotherapy, irregular administration, neglect in taking one or more of the prescribed drugs, poor absorption, or insufficient number of active agents in the regimen. Patients who are at increased risk of relapse are those who have cavitation on initial chest radiograph and those who have a positive culture after completing two months of therapy.

TB susceptibility results may not be available for up to two months. Smear negative specimens can take longer to yield a positive culture, therefore delaying susceptibility testing. Obtaining susceptibility results and using them to modify treatment in a timely manner is essential to effective treatment and to limiting the development of further drug resistance.

Usual MTB empiric therapy as recommended by the CDCP, American Thoracic Society (ATS), and the Infectious Diseases Society of America (IDSA) includes isoniazid, rifampin, pyrazinamide, ethambutol. Medication options for those who have MDR TB include streptomycin, amikacin, kanamycin, capreomycin, ofloxacin, ciprofloxacin, ethionamide, aminosalicylic acid, and cycloserine. The CDCP, ATS, and IDSA have compiled guidelines to the "Treatment of Tuberculosis" that appeared in the Morbidity and Mortality Weekly Report on June 20, 2003. This comprehensive guide is designed to help providers managing TB. If a patient needs modification of his treatment regimen due to failure, at least two drugs should be added to a failing regimen until susceptibilities return. Some drugs may require levels be checked and some may require dose-adjustment for renal insufficiency.

Treatment of the HIV- and TB-coinfected patient can be challenging. In a study of HIV-infected individuals infected with tuberculosis in Greater London and Southeast England by G. L. Dean and his colleagues, 54% (99/183) of patients experienced adverse events during HIV and TB therapy. One-third of patients had to interrupt or change therapy. The most common adverse events included peripheral neuropathy (21%), rash (17%), and gastrointestinal upset (10%). These most often occurred in the first two months of therapy. Patients with CD4 counts > 100/mm were unlikely to experience AIDS defining illnesses during the course of therapy, so the authors concluded that the initiation of HAART therapy should be deferred until the first two months of TB therapy is completed. An Italian study showed that HAART therapy after TB diagnosis is associated with a decreased risk of death; while older age, CD4+ cell count < 25/mm3, and an AIDS-defining illness before TB diagnosis were associated with a higher risk of death.

Drug interactions complicate treatment of patients co-infected with HIV and tuberculosis. Two medications that commonly cause drug interactions are rifampin and ritonavir. The same premise of adherence as a way to decrease the emergence of MDR TB holds true as the key to success for Highly Active Anti-retroviral Therapy (HAART). Adherence to treatments that may include more than 20 pills each day is very challenging and requires close monitoring by experienced providers.

Treatment outcomes vary among patients with MDR-TB. Response depends on the extent of pulmonary involvement, the number of bactericidal drugs used, community resources available, and the patient's ability to comply and tolerate therapy. Reported success rates have varied between 60% and 95% in selected groups.

Prevention is still key to reduce the spread of tuberculosis and is emphasized for the control of MDR-TB. Directly Observed Therapy (DOT) has aided in the effort to ensure compliance of therapy for TB and prevent the emergence of MDR TB. It is also essential to recognize risk factors of prior noncompliance to therapy or being in or from an epidemic area for MDR-TB. The recent treatment guidelines in the June 2003 issue of the MMWR are a valuable resource to be used in the treatment of tuberculosis. Cooperation with public health departments and experts in the management of HIV and TB is essential to the success of treatment of the HIV and MTB- co-infected patient.

Disclosures:

**Speaker's Bureau: Gilead, GlaxoSmithKline, Bristol-Myers Squibb*

SPOTLIGHT: Clustering for Care and the Civil Rights of HIV-Infected Inmates

Abby Dees, J.D.*, Interim Director of Correct HELP - The Corrections HIV Education & Law Project
Mary Sylla, J.D.**, Founding Director of Correct HELP

Last year, a group of segregated HIV-infected inmates filed a class action lawsuit against the Limestone Correctional Facility in Alabama. Their complaint - unconstitutional medical treatment and living conditions - paints a disturbing picture of gross neglect and poor medical care. The controversy surrounding this lawsuit has focused new attention on the issue of clustering, or grouping or segregating HIV-infected inmates to provide specialized treatment and management. While many medical service providers support clustering as a tool to provide skilled, centralized care for HIV-infected inmates, many prisoners' rights advocates argue that clustering raises serious civil rights issues, such as those alleged in the Limestone case.

Practical Aspects of Clustering

The primary goal of clustering is to create centers of excellence that promote HIV expertise. By bringing together all HIV-infected inmates, a prison may dedicate staff and resources to their care, and ensure up-to-date medical treatment. Likewise, inmates benefit from living in therapeutic communities, with peer support and improved patient education, relatively free from the threat of harassment from other inmates. Clustering may also reduce HIV transmission among inmates and promote increased HIV testing and disclosure, since inmates know that they will receive better care if they seek help.

Opponents of clustering laud these goals, but say they are unrealistic in practice. Since prison health care is, in some cases, underfunded, and overtaxed by patient need, opponents doubt that the goal of excellence (comparable to outside facilities) can be met, even with the increased efficiency of clustering. Additionally, clustering may actually discourage disclosure and testing because segregated HIV-infected inmates are often denied full and equal access to coveted work and education programs. As HIV treatment continues to improve and HIV-infected individuals live healthier lives with only routine monitoring, clustering may become increasingly outdated.

It is important to note that clustering can take a number of different forms. Some states may simply designate that all known HIV-infected inmates be housed in general population at specific facilities to obtain centralized treatment and better use of medical resources; others may provide separate dorms or units within general population, and still others that may totally segregate HIV-infected inmates from general population. Currently, Alabama is the only state that has an official policy of segregating HIV-infected inmates. As will be discussed below, the legal implications of clustering depend greatly on the extent to which HIV-infected inmates are treated differently than HIV-uninfected inmates of the same security level.

Legal Issues Raised by Clustering

The two main areas of the law that address the issue of clustering are the 8th Amendment of the Constitution and anti-discrimination disability statutes. The 8th Amendment, which prohibits cruel and unusual punishment, establishes the baseline for inmate medical care: staff must not be deliberately indifferent to an inmate's serious medical needs. This is a very low standard that requires staff simply to refrain from knowingly allowing an inmate to suffer great harm. Not surprisingly, the 8th Amendment gives facilities great latitude to establish their own HIV treatment protocols. So far, none of the high courts have interpreted the 8th Amendment to mean that an HIV-infected inmate should see an HIV specialist. The goal of clustering for HIV care thus far exceeds any constitutionally-mandated level of care - a fact justly celebrated by proponents.

However, clustering can be problematic when challenged under statutes that prohibit discrimination on the basis of disability, such as the Americans with Disabilities Act. These laws require that HIV-infected inmates have equal access to prison programs for which they are "otherwise qualified." In the 1999 case of Onishea v. Hopper (171 F.3d 1289), the 11th Circuit Court of Appeals held that HIV-infected inmates could be segregated for legitimate penological reasons (e.g., security or efficiency), but that prisons were still required to make a good faith effort, or "reasonable accommodation" to provide equal access to programs and services. The court stipulated that prisons should not have to bear an enormous cost burden to provide equal access, but did not state as a matter of law what particular accommodations were required.

This gray area means that prisons still have little guidance about what constitutes a reasonable accommodation. Anti-discrimination laws in the prison context are therefore still in a tremendous state of flux.

So, the most basic operating principle is this: the more that clustering results in reduced access to prison programs and services, the more vulnerable a prison can be to litigation. If clustering can be accomplished with minimal impact on inmates' access to programs and services, inmates may be more likely to disclose their status, seek testing, and otherwise gain the benefits of a clustering system. These programs may, therefore, pass muster under anti-discrimination laws if challenged in the courts.

Finally, clustering raises the issue of the right to privacy under the 1st Amendment. In many facilities, clustered inmates can be identified by other inmates, thereby revealing their status. While inmates do have a basic right to privacy, courts have held that legitimate penological concerns, such as inmate health and well-being, outweigh these privacy interests.

Clustering and Mandatory Testing

Another factor to consider is how effective clustering can be in states without mandatory testing. Inmates who choose not to seek testing or disclose their HIV status out of fear of segregation are effectively cut off from HIV care and counseling, possibly increasing the risk of transmission to other inmates. However, if facilities can design clustering programs that try to meet the requirements of anti-discrimination laws, inmates may be much more likely to seek proper care in those states that do not have mandatory testing.

Conclusion

In a perfect world, HIV-infected inmates would have access to expert treatment and equal opportunities to participate in prison programs, and the law strives for something like this. However, the reality of prison life and limited funds can thwart these goals. The best compromise may be a truly individualized system that allows those HIV-infected inmates who need highly focused medical attention to receive it, perhaps through inmate clustering, while those who can fully participate in prison programs be allowed to do so.

Disclosures:
**Nothing to disclose.*
***Nothing to disclose.*

Save the Dates

OraQuick Rapid HIV-1 Antibody Test Seminar
November 4, 2003
Raleigh, North Carolina
Topics: HIV-Test Related Counseling; Oral HIV Antibody Testing; Partner Notification; Rapid HIV Antibody Testing.
Contact: Community Service Network, Inc.
Call: 910.892.8128
Fax 910.892.813;
Email: CSN@dockpoint.net

ICAAC & IDSA Update
November 7, 2003
Boston, Massachusetts
Topics: Adverse Reactions; Antiretroviral Drugs; Drug Resistance; HIV/AIDS Treatment or Therapies; Metabolic Diseases or Disorders
Contact: NEAETC
Call: 617.262.5657
Fax: 617.262.5667
Email: aidsed@neaetc.org
www.neaetc.org/_Programs/2003/11November/07ICAAC_IDSA.htm.

Antiretrovirals: From the Street to the Gut to the Cell
November 7, 2003
Worcester, Massachusetts
Topics: Antiretroviral Drugs; Drug Resistance; HIV/AIDS Treatment or Therapies; Metabolic Diseases or Disorders; Patient Care
Call: 800.366.9034

Inside and Out: HIV and Corrections
December 5, 2003
Radisson Hotel
Marlborough, Massachusetts
A conference to increase knowledge, awareness and understanding of HIV infection in correctional and post-correctional settings.
Contact: Andy Diamond
Call: 617.450.1264
Fax: 617.437.6445
Email: adiamond@aac.org

The 11th Conference on Retroviruses and Opportunistic Infection
February 8-11, 2004
San Francisco, California
Contact: Office of the Retrovirus Conference Secretariat
Call: 703.535.6862
Fax: 703.535.6899
Email: info@retroconference.org
www.retroconference.org

Inside News

CDC Broadcast: "Preparing for the Return of SARS: Are we ready?"
This public health training live satellite broadcast assists healthcare providers in preparing to diagnose and manage patients with SARS should cases be suspected or identified in the coming months. This two-part training session aims to provide updated information required to identify and manage patients with SARS, and to prevent transmission of SARS in healthcare facilities and the community. Program details can be viewed at www.phppo.cdc.gov/PHTN/SARS-return.
CDC, 9/11/03

Merck Starts Global Human Trial of HIV Vaccine
Merck & Co. announced that it has started the first global human trials of an experimental AIDS vaccine, in collaboration with Seattle-based HIV Vaccine Trials Network. This study, which is being conducted in 18 cities in North America, South America, the Caribbean, southern African and southeast Asia, includes about 435 adult volunteers not infected with HIV. The goal of the trials is to determine whether the vaccine candidate is safe, has tolerable side effects, is practical to administer in different areas of the world, and stimulates an immune response. Diverse testing sites are critical, as different strains of HIV circulate in different regions. Since the vaccine is made from a modified cold virus, and does not contain any live HIV, there is no risk of causing HIV infection.
Associated Press, 9/19/03

FDA Approves Schering Drug for Hepatitis C
Schering-Plough Corporation said it had received Food and Drug Administration approval for a prefilled penlike syringe that administers a drug for chronic hepatitis C. The device, the PEG-Intron Redipen, was designed to be simpler to use than a traditional vial and syringe. Schering-Plough, based in Kenilworth, N.J., said it expected to make the product available in the United States in early 2004. It is already available in Europe and other international markets.
New York Times, 10/14/03

Study: Switching from a PI to an NNRTI is Safe for Patients with Undetectable Viral Load
An article in the New England Journal of Medicine (NEJM) presents data that suggests treatment regimens containing nevirapine or efavirenz offer comparable efficacy and safety to patients with an undetectable viral load who switched from a protease inhibitor- (PI) based regimen. Both are non-nucleoside reverse transcriptase inhibitors (NNRTIs) that are used in combination with other antiretroviral therapies to treat patients with HIV-1 infection. The nucleoside reverse transcriptase inhibitor (NRTI), abacavir, was also evaluated in the study. According to investigators, there was a trend towards higher failure rates in patients who switched to abacavir. The results of the study are significant because physicians are seeking alternatives to PI regimens due to their high pill burden and food restrictions or concerns about metabolic side effects.
www.aegis.org/news/pr2003/PR030923.html

Study: DOT Does Not Ensure HIV Treatment Adherence
Directly observed therapy (DOT) for HIV infection is commonly used in correctional settings; however, the efficacy of DOT for treating HIV infection has not been confirmed. A study from the University of North Carolina at Chapel Hill assessed adherence to antiretroviral therapy regimens among 31 HIV-infected prison inmates who were receiving ≥ 1 antiretrovirals via DOT. Adherence was measured by self-report, pill count, electronic monitoring caps, and, for DOT only, medication administration records. Objective methods of measurement revealed that adherence to antiretroviral regimens administered wholly or in part by DOT was < or = 90% in more than one-half of the patients. Different methods used to measure adherence revealed significantly different levels of adherence. These findings suggest that use of DOT does not ensure adherence to antiretroviral therapy.
Division of Infectious Diseases, Department of Medicine, University of North Carolina at Chapel Hill

SARS Resources

World Health Organization (WHO)
www.who.int/csr/sars/en/

Centers for Disease Control and Prevention
(CDC), www.cdc.gov/ncidod/sars/

National Library of Medicine
www.nlm.nih.gov/medlineplus/severeaccuterespiratorysyndrome.html

TRAIN.org
www.TRAIN.org

Self-Assessment Test for Continuing Medical Education Credit

Brown Medical School 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 May 31,2004. The estimated time for completion of this activity is one hour and there is no fee for participation.

1. The incidence of HIV-associated opportunistic infections is lower in incarcerated HIV-infected patients than in those who are not incarcerated.
   a) True
   b) False

2. The introduction of HAART has resulted in which of the following?
   a) An increase in the number of patients living with AIDS
   b) Prevention of the immunological abnormalities associated with HIV infection
   c) A decline in the rates of HIV-related deaths and OIs
   d) All of the above

3. Secondary prophylaxis is instituted:
   a) before the occurrence of an OI
   b) at the onset of an OI
   c) after the first episode of illness, to prevent recurrences
   d) depending upon the type of OI

4. One advantage to Keep On Person (KOP) Therapy vs. Directly Observed Therapy (DOT) is:
   a) KOP improves the ability of clinicians to assess for adherence
   b) KOP methods increases a patient's control over his or her therapy
   c) KOP methods are better for patients who often forget to take their medication
   d) KOP methods eliminate the likelihood of waste of medications

5. Currently, the only state that has an official policy of segregating HIV-infected inmates is:
   a) Georgia
   b) Florida
   c) Alabama
   d) Texas

6. Multi-drug resistant tuberculosis (MDR TB) is defined as tuberculosis that is resistant to at least:
   a) isoniazid and rifampin
   b) rifampin and clarithromycin
   c) ethionamide, aminosalicylic acid, and cycloserine
   d) isoniazid and ciprofloxacin

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1. Please evaluate the following sections with respect to:

	educational value	clarity
Main Article	5 4 3 2 1	5 4 3 2 1
Inside News	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 Report helps you in your work?

   Why or why not?

3. What future topics should HEPP Report address?

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

5. Do you have specific comments on this issue?

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