Dear Colleagues:

Welcome to the sixth issue of Public Health Matters. Our entire issue is devoted to the subject of HIV/AIDS in the Veterans Health Administration (VHA). Currently, there are more than 23,000 Veterans in care for their HIV-disease in the VHA. This makes us the largest health care provider of services for HIV-infected persons in the United States. Equally noteworthy, it means that our doctors, nurses, and clinical providers are among the most skilled and experienced when it comes to caring for persons living with HIV/AIDS.

Data from the Clinical Case Registry (CCR) provides facility and VISN-level information that is critical to the process of continually improving Veterans’ health care. Read “The Landscape of HIV Care across the VHA” to get a better understanding of current practice trends and to learn more about areas where we can move from “good” to “great.” We think you will find our “best practices” article equally informative. VHA providers report on their experiences in successfully changing the local culture at a large, metropolitan VA medical center from risk-based to routine HIV testing.

As you are reading this issue of our newsletter, keep in mind that the VHA experience in diagnosing and providing lifelong care to Veterans with HIV disease can serve as a model for providers in other health care systems across the Nation. What we know about providing high-quality HIV/AIDS care is especially timely given the President’s promise to develop a U.S. Government-wide National HIV/AIDS Strategy (NHAS). The NHAS has three fundamental goals: to reduce HIV incidence; to increase access to care and optimize health outcomes; and to reduce HIV-related health disparities. Embracing these goals is a way to support national HIV efforts and will also help to maintain the highest quality of care for our HIV-infected Veterans. They deserve nothing less.

Wishing you Good Health,

Ron Valdiserri, M.D., M.P.H.
Chief Consultant, Public Health SHG
The Landscape of HIV Care across the VHA: A National Snapshot

The Veterans Health Administration (VHA) is the largest single provider of HIV care in the United States. To date, nearly 64,000 Veterans with HIV/AIDS have received care in the VHA. In 2008, 23,463 HIV-infected Veterans were seen by VHA clinicians; their care was delivered in every one of the VHA’s 21 Veterans Integrated Service Networks (VISNs).

Overall, 5.6 million Veterans were treated by the VHA in 2008; thus, about one of every 250 Veterans in VHA care that year was known to be living with HIV/AIDS. Geographically, 51% of Veterans with HIV/AIDS are seen in the South, 20% in the West, 17% in the Northeast, and 12% in the Midwest – similar to the distribution of new AIDS cases reported by the Centers for Disease Control and Prevention (CDC) in 2007. In 2008, 13 (10%) individual VHA health care systems each managed 500 or more Veterans with HIV/AIDS (the largest with 1,200 cases), 14 (11%) reported 300 to 499 patients, 46 (36%) had 100 to 299, 35 (27%) had 25 to 99, and 20 (16%) reported less than 25 Veterans with HIV/AIDS in care.

The VHA HIV/AIDS population is predominately male (97%), however, the VHA provides care to a substantial number of women Veterans with HIV/AIDS (more than 600). More than 50% of Veterans with HIV/AIDS in care in 2008 were nonwhite, with 50% Black, 42% White, 7% Hispanic, and less than 1% representing all other racial categories combined. The VHA population with HIV/AIDS is older than that reported by the CDC for the general U.S. HIV/AIDS population. Veterans with HIV/AIDS in care in 2008 had a mean age of 52.6 years and 27% were aged 60 years or older compared to only 7% aged 60 years or older in the U.S. HIV/AIDS population.

For those Veterans in care for HIV/AIDS in 2008, the median nadir CD4+ lymphocyte count (lowest count ever in VHA records) was 193 cells/mm³. Importantly, 44% of the Veterans new to VHA HIV/AIDS care in 2008 had an undetectable HIV viral load, suggesting that a large portion of these Veterans were already receiving antiretroviral therapy when they transferred care to the VHA.

Other Diseases and Conditions

In 2008, several co-morbid conditions requiring chronic medical management were present in approximately 20% or more of the HIV population in care at the VHA: depression (51%), hypertension (49%), dyslipidemias (43%), anemia (28%), neuroses or anxiety disorders (28%), chronic hepatitis C infection (25%), esophageal disease (22%), and diabetes (19%). Other important clinical conditions affecting HIV care in 2008 included post-traumatic stress disorder (PTSD) (14%), chronic obstructive pulmonary disease (COPD) (12%), ischemic heart disease (11%), chronic renal failure (8%), and chronic hepatitis B virus infection (7%). Substance use was quite prevalent in the HIV/AIDS population in VHA care in 2008, with 34% reporting a history of alcohol abuse and 31% a history of illicit drug use. In 2008, 17% of HIV-infected Veterans in VHA care had a recent “hard drug” use diagnosis, including use of amphetamines, cocaine, or opioids.

Consistent with trends across the United States, significantly fewer HIV-infected Veterans have been diagnosed with AIDS defining conditions in the past few years as compared to the early to mid 1990s. Only three AIDS defining conditions were diagnosed in 2008 in 1% or more of those in VHA HIV care: lymphoma (1.3%), Pneumocystis jiroveci pneumonia (1.2%), and invasive candidiasis (1.0%).

Antiretroviral Therapy

In 2008, 80% of Veterans with HIV/AIDS in VHA care received antiretroviral (ARV) therapy for HIV. In 2008, 92% of Veterans on ARV therapy received a nucleoside/nucleotide reverse transcriptase inhibitor, 57% received a protease inhibitor, 49% received a non-nucleoside reverse transcriptase inhibitor, 24% received a PI/nucleoside/nucleotide reverse transcriptase inhibitor combination, and 10% received an integrase inhibitor.

In 2008, 1,459 Veterans with HIV/AIDS were identified as new to VHA HIV/AIDS care. This population includes new HIV diagnoses, as well as the initiation of VHA HIV/AIDS care for those previously known to be HIV positive. The median age, sex, race, and ethnicity of those new to VHA care was similar to Veterans already in VHA care for HIV/AIDS. At entry into VHA HIV care, 44% had a CD4+ lymphocyte count less than 350 cells/mm³.
transcriptase inhibitor, 6% received an integrase inhibitor, and less than 1% received a fusion inhibitor or CCR5 antagonist. Over the past five years, VHA prescribers increased their use of co-formulated products and pharmacologic enhancement of certain drugs through “ritonavir boosting.” In 2008, 67% of all Veterans with HIV/AIDS in VHA care on ARV therapy received a tenofovir-containing regimen while at least one in five received the following agents: emtricitabine (55%), ritonavir (50%), lamivudine (44%), efavirenz (40%), atazanavir (25%), and lopinavir (21%). The national rate for HIV RNA control (defined as an HIV viral load of < 400 copies/mL) was 83%.

Indicators of Quality Care

Beginning in 2006, the VHA’s Public Health Strategic Health Care Group (PHSHG) initiated review of data on a select number of clinical topics important in the care of Veterans with HIV/AIDS. This work was performed using the VHA’s national Clinical Case Registry (CCR), a software package that combines locally available population management tools with an up-to-date aggregated national database. National rates and VISN ranges for adherence to specific recommendations for Veterans with HIV/AIDS receiving VHA care in 2008 appear in Table 1. In general, performance of these measures was quite high. Geographic variability (across VISNs and local health care systems) is limited for most of these rates; however enough variation exists for some rates to merit further intervention.

Conclusion and Future Directions

Information from the CCR regarding the state of VHA care for Veterans with HIV/AIDS, along with assessments of trends over time, has been useful within the VHA for planning staffing, projecting costs, and understanding where improvements in care can be made. VHA facilities with higher rates of performance may provide models for replication at other facilities. Challenges for high quality VHA HIV care will include maximizing early identification of HIV disease through routine voluntary testing, ensuring that outcomes are comparable across facilities, managing multiple co-morbidities, and understanding issues related to therapy fatigue and adherence. PHSHG will address these issues using public health and quality management techniques, capitalizing on the existing knowledge and insight of VHA providers who have years of experience. Future efforts will include developing consensus quality indicators to help guide quality initiatives, measuring those initiatives and feeding back information to providers and administrators, researching outcomes affecting these Veterans, changing VHA policy to remove barriers to optimal care, sharing best practice models, and sponsoring training and education of existing and new VHA providers.

**Table 1. QUALITY INDICATORS FOR VETERANS WITH HIV/AIDS IN VHA CARE, NATIONAL RATE AND VISN RANGE IN 2008**

<table>
<thead>
<tr>
<th>Quality Indicator*</th>
<th>Number of Veterans Affected</th>
<th>National Percentage</th>
<th>VISN Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD4 lymphocyte count and HIV RNA monitoring</td>
<td>22,294</td>
<td>79%</td>
<td>69% - 86%</td>
</tr>
<tr>
<td>Rate of HIV RNA control</td>
<td>18,670</td>
<td>83%</td>
<td>73% - 89%</td>
</tr>
<tr>
<td>PCP prophylaxis</td>
<td>2,047</td>
<td>86%</td>
<td>77% - 94%</td>
</tr>
<tr>
<td>MAC prophylaxis</td>
<td>434</td>
<td>75%</td>
<td>50% - 94%</td>
</tr>
<tr>
<td>Influenza vaccination (2007-08 Flu season)</td>
<td>22,413</td>
<td>59%</td>
<td>50% - 67%</td>
</tr>
<tr>
<td>Pneumococcal vaccination</td>
<td>23,463</td>
<td>72%</td>
<td>59% - 78%</td>
</tr>
<tr>
<td>Hepatitis B screening</td>
<td>23,463</td>
<td>92%</td>
<td>86% - 97%</td>
</tr>
<tr>
<td>Hepatitis B immunity or vaccination</td>
<td>21,814</td>
<td>77%</td>
<td>66% - 89%</td>
</tr>
<tr>
<td>Hepatitis C screening</td>
<td>23,463</td>
<td>96%</td>
<td>90% - 98%</td>
</tr>
<tr>
<td>Syphilis screening in the year</td>
<td>23,463</td>
<td>48%</td>
<td>27% - 68%</td>
</tr>
<tr>
<td>Latent Tuberculosis screening</td>
<td>23,463</td>
<td>59%</td>
<td>41% - 79%</td>
</tr>
<tr>
<td>Lipid screening in those on ARV therapy</td>
<td>17,665</td>
<td>65%</td>
<td>48% - 83%</td>
</tr>
<tr>
<td>Tobacco cessation -- Received pharmacotherapy ever</td>
<td>10,324</td>
<td>36%</td>
<td>31% - 50%</td>
</tr>
</tbody>
</table>

*Additional information on how each of these indicators were assessed can be found at www.hiv.va.gov under the report entitled “State of Care for Veterans with HIV/AIDS.”

**REFERENCES**

Changing the Culture of HIV Testing in the VA: Lessons from the Medical Center in Washington, DC

In 2006, the U.S. Centers for Disease Control and Prevention revised its recommendations to routinely offer HIV screening to all adolescents and adults in health care settings with at least 0.1% HIV prevalence, and in 2009, the American College of Physicians issued their guidance to broaden HIV screening to all patients. Section 124 of P.L. 100-322 was repealed in October 2008, and the VHA set forth Directive 2009-036, effective August 17, 2009, which changed HIV testing policy throughout the health care system from risk-based testing to routine, voluntary HIV testing of all Veterans. Both Federal law and regulations were changed to eliminate the requirements for written informed consent and scripted pre-test and post-test counseling. The new VHA policy requires that written HIV educational materials be provided to patients and that verbal – instead of written – consent for HIV testing be obtained and documented in the medical record. The VHA’s current policy brings us closer alignment with the 2006 CDC recommendations and the 2009 guidance from the American College of Physicians.

The VA Medical Center in Washington, DC (VAMC-DC) has been at the forefront of implementing Directive 2009-036 into its local policy. In the District of Columbia, the overall prevalence of HIV infection is estimated to be 3.2%, the highest for any metropolitan area in the Nation. At VAMC-DC, the prevalence of known HIV among those tested has been 2.3% (range: 2.1-2.5%) during 2000 through 2007. While some VAMC-DC health care providers may have been aware of the high HIV prevalence, the mean annual HIV testing rate during 2000 through 2007 was only 4.25% (range: 3.8%-4.9%). Time constraints, especially the requirements for documentation of written informed consent with pre-test and post-test counseling, were barriers to testing for many clinicians. With the change in VHA policy in August 2009, the challenge has shifted to transforming the culture of frontline providers to incorporate HIV screening into routine medical care and reducing the stigma attached to ordering the test by providers and acceptance of the test by patients.

At the VAMC-DC, we have implemented a multifaceted approach to broaden HIV screening. First, we instituted HIV Rapid Testing (HIV-RT) to be performed as point of care (POC) testing by working closely with our Laboratory Service. This process required strong cooperation between Laboratory Service and our local HIV-RT champions to assure proper test performance and full compliance with all laboratory quality assurance and regulatory measures. Second, we have collaborated with various clinical staff at VAMC-DC to enhance their awareness of HIV-RT as a screening option. At the VAMC-DC, we have strived to incorporate HIV testing into routine practice for inpatients admitted to the Medical and Mental Health Services, along with outpatients in the Substance Use Disorder (SUD) Clinic, hepatitis C Clinic and education class, Women’s Clinic, homeless outreach programs and health fairs. In these settings, we have achieved an overall testing rate of 33% (range: 18% to 79%) since 2007. Third, to achieve the goal of routine HIV testing for all Veterans, we must conduct routine testing in the primary care setting by working closely with primary care providers (PCP) in our facility. All Veterans are assigned to a primary care clinic and have developed strong rapport with their PCP; this provides the optimal milieu for routine HIV testing. We have partnered with the Greater Los Angeles VA Medical Center (VAMC-GLA) on a research project funded by the VA Quality Enhancement and Research Initiative for HIV and HCV (QUERI-HIV/HCV) to pilot a nurse-based HIV-RT program in our primary care clinics. We hope this project will help promote a culture change among PCPs by making them aware of the importance and benefit of HIV testing in routine medical care. Fourth, we developed an HIV-RT Tool Kit to help other facilities set up HIV-RT. Templates include suggested processes for collaboration with Laboratory Service, correlation of HIV-RT with the standard HIV serology test, quality assurance, and documentation. Fifth, to expand HIV testing and partner with another facility within VISN 5, we provided technical and practical assistance, and used our HIV-RT Tool Kit to initiate and establish an HIV-RT program at the VA Medical Center in Martinsburg, WV, in 2009.

HIV-RT has made a significant impact in our HIV screening capabilities by allowing point of care testing for Veterans, enhancing timely testing, and improving results notification. Our HIV-RT platform accepts both oral fluid as well as whole blood specimens for testing. At VAMC-DC, patients’ acceptance of HIV screening has been enhanced...
by use of a POC and an oral testing method, such that our overall rate of HIV-RT acceptance is 7.7-fold higher than the acceptance of traditional HIV serology with phlebotomized blood.7-8 As we have used HIV-RT in the inpatient and various outpatient settings, and results were available in 20-40 minutes, 99.7% of patients received their results in our HIV-RT program.7-8 Of 2,310 patients tested, only seven have not received their negative test results due to unreliable contact information, when patients did not return after the allotted time to learn their results. While the majority of HIV tests will be negative, even within our high prevalence setting, the major benefit of rapid testing in these clinical settings is timely notification of patients of their HIV test results by providers during the same encounter. All persons with reactive screening results have had prompt confirmatory testing and linkage to care in our Infectious Diseases Clinic. Knowing HIV test results has impacted the patients’ care significantly, particularly in our clinic and health fair populations, by providing reliable health information to Veterans and their providers. Increased testing has led to identification of new infections and timely linkage to care with potentially many years of healthy life gained for Veterans. Importantly, earlier HIV diagnosis may decrease annual transmission rates by 21%,9 as patients who know they are infected generally practice safer behaviors.10 Implementation of routine HIV testing is not without challenges, and efforts are still needed to take the policy into practice. Nevertheless, we need to realize that there is significant benefit for the Veterans by routinely testing for HIV. At VAMC-DC, we have faced the challenge and seen the benefit. We have already observed a 37% increase in HIV testing after VHA policy changed in August 2009.12 The time has come for VHA providers to screen Veterans for HIV and provide life-saving treatment to those diagnosed with HIV, so that our patients can be guaranteed “the best care — anywhere”.

References

HAART Use Not Associated with Lower Anal Cancer Risk

This analysis used longitudinal data from the U.S. Military Natural History Study (1985-2008). The incidence rate of anal cancer in this study was significantly greater than that seen in the general U.S. population. Also, the median age of diagnosis was 42 years in this study, compared to the typical occurrence in the sixth decade in persons who are not infected with HIV. Furthermore, anal cancer rates increased five-fold from the pre-HAART to the HAART era among 4,506 HIV infected men, representing 37,806 person years of follow-up. Persons with HIV infection for more than 15 years had a 12X higher rate of anal cancer compared to those with HIV infection for less than five years. Duration of HAART use was not associated with a reduced risk of anal cancer. Rising rates of anal cancer among HIV-infected persons underscore the importance of early diagnosis and treatment.


Telephone-Administered Motivational Interviewing

This single-blind study involved 79 HIV-infected rural persons who reported one or more episodes of unprotected sex in the past two months. Participants were recruited through AIDS service organizations in the rural areas of 27 states. They were randomly assigned to a two session, telephone-administered, integrated intervention (skills building plus motivational interviewing) or a comparison intervention (two telephone sessions of skills building only). Self-reported behaviors were assessed at baseline and at two months follow-up. Integrated intervention participants reported greater increases in risk-reduction motivation and greater increases in condom-protected intercourse compared to skills building only participants. Brief telephone-administered interventions that incorporate motivational interviewing show promise as potential strategies to reduce sexual risk for rural persons living with HIV.


HIV, HCV, and Chronic Kidney Disease

In a large, national cohort of HIV-infected Veterans (n = 23,155) who received care in the VHA between 1998 and 2004, 12% had chronic kidney disease (CKD). Forty percent of the Veterans were co-infected with HCV and a higher proportion of co-infected subjects (14%) had CKD compared to those who were only infected with HIV (11%). During a median follow-up of 7.6 years, HCV co-infection was independently associated with increased mortality. These data reinforce the importance of optimizing medical care for mono- and co-infected Veterans, including HAART therapy.


Non-Adherence to HAART and Mortality Risk

This study followed 903 antiretroviral-naïve Canadian adults who initiated HAART between January 2000 and November 2004 and were followed until November 2005. Individual adherence decreased significantly over time; mean adherence decreased from 79% in the first six months after starting HAART to 72% at the 24-30 month period. The all-cause mortality was 11%. Nonadherence over time was strongly associated with a higher risk of mortality and patients on efavirenz-based NNRTI therapies were particularly at higher risk of mortality if nonadherent. These findings underscore the need to develop and implement strategies to sustain long-term adherence.


Diabetes and HIV

This literature review summarizes the current knowledge of the prevalence and pathogenesis of disorders of glucose metabolism in HIV infection. Interpretation of published studies suggest that patients with treated HIV infection are at increased risk for diabetes due to class-specific and drug specific adverse metabolic effects, the effects of lipodystrophy, and the impact of the ongoing epidemic of obesity. Questions requiring further study include: What is the natural history of diabetic complications in persons with HIV/AIDS? Will lipid disorders found in treated HIV infection and lipodystrophy accelerate the progression to and severity of diabetes? Long-term, prospective studies will be needed to answer these questions.

PHSHG WELCOMES MAGGIE CZARNOGORSKI AS CPHP DEPUTY

Maggie Czarnogorski, M.D., is the new Deputy for the PHSHG Clinical Public Health Programs. Dr. Czarnogorski is an infectious diseases physician whose personal and professional focus has been the education of patients and providers about HIV/AIDS. She most recently worked as a clinic physician at the National Institutes of Health/National Institute of Allergy and Infectious Diseases, where she was involved in HIV and Hepatitis C clinical trials. In addition to her responsibilities at Central Office, she is also a staff physician in the Infectious Diseases Section at the Washington, DC VAMC.

VA Public Health Portal Links:

- Use of Rapid Testing for Routine HIV Screening (VHA IL)
  www.hiv.va.gov

- Recommendations for Use of Antiretroviral Regimens in HIV-infected Treatment-naïve Veterans
  www.hiv.va.gov

- Varenicline Criteria for Prescribing
  www.publichealth.va.gov/smoking

PHSHG Senior Staff

Ronald O. Valdiserri, M.D., M.P.H.
Chief Consultant

Jane Burgess, ACRN, MS
National Program Manager,
QUERI HIV/Hepatitis

Maggie Czarnogorski, M.D.
Deputy Director, Office of Clinical Public Health Programs

Janet M. Durfee, RN, MSN, APRN
Deputy Chief Consultant

Kim Hamlett-Berry, Ph.D.
Director, Office of Public Health Policy and Prevention

Mark Holodniy, M.D., FACP
Director, Office of Public Health Surveillance and Research

Larry Mole, Pharm.D.
Director, Center for Quality Management in Public Health

Jo Sheehan Brabson, BS, RN
Chief Administrative Officer

Gina Oda, MS, CIC
Associate Director, Office of Public Health Surveillance and Research

David Ross, M.D., Ph.D.
Director, Office of Clinical Public Health Programs

Contact/Comments

If you have any comments or suggestions, we welcome your feedback. We will read and consider all comments and suggestions but, due to the large volume of correspondence received, may not be able to reply to each individual directly. Comments about this newsletter can be addressed to: publichealth@va.gov.

Ronald O. Valdiserri, M.D., M.P.H., Editor-in-Chief

Ronald Karstetter, Associate Editor

The content of this newsletter is in the public domain and may be used and reprinted without permission, although citation as to source is appreciated. An electronic version (PDF) of this newsletter can be found at: http://www.publichealth.va.gov/newsletters/publichealthmatters.asp.