The management and prognosis of HIV disease has changed dramatically since the introduction of combination HIV antiretroviral therapy in 1996. Thus, the number of older adults with HIV is increasing partly because people with HIV are living longer. At the same time, the rates of new HIV cases in older adults (usually defined as people over the age of 50) are also increasing. Currently, about 25 percent of all patients living with HIV are older than 50, and by 2015 adults older than 50 will account for 50 percent of the population living with HIV. These trends make understanding the medical challenges of HIV in older adults more important than ever. This article reviews the special issues associated with HIV and AIDS in an older population.

Epidemiology

While a portion of the increased rate of HIV in older adults results from the greater prevalence of HIV in the entire population, the number of new infections in older adults has also risen in recent years. There was an alarming 17 percent increase in the number of older people living with HIV and AIDS in the period from 2001 to 2005. People over 50 years old account for 15 percent of newly diagnosed cases of HIV, and 19 percent of all new AIDS cases. Twenty-nine percent of those living with AIDS are also in this age group.

A variety of possible explanations for this exist, including the fact that HIV-positive people are living longer with the virus. A recent review indicates that the average life expectancy for a 20-year-old person beginning antiretroviral treatment is 43 years (until age 63), or about two-thirds as long as the general population. Unfortunately, too few older patients have been followed to extend this projection to older patients with HIV. Approximately 33 percent of all AIDS deaths occur in older adults. Demographics for this age group describe a differential between the death rates for racial and ethnic groups: the death rates are five times higher among older Hispanic Americans with AIDS and 12 times higher in older Black Americans with AIDS than they are for White Americans with AIDS.

Prevention and Testing

Prevention and early diagnosis of HIV infection remain the keys to combating this disease, but older adults are often ignored or forgotten in these critical areas. Prevention campaigns have generally targeted younger people, and many older people do not consider themselves at risk for contracting HIV. Older adults are much less likely to use condoms than younger adults. Many consider condoms a method of birth control, and patients out of their childbearing years may not realize that condoms also prevent transmission of STDs like HIV. A large national survey of sexual practices in older adults found that older adults at risk of HIV infection were one-sixth as likely as younger adults to use condoms during sex and one-fifth as likely to have been tested for HIV infection. HIV testing campaigns have not been geared toward older adults, and even the CDC’s expanded recommendations regarding HIV testing suggest that routine testing only be conducted on people who are 13–64 years old. Medical providers often do not consider that older adults are sexually active and may use injection drugs, and therefore do not perform an adequate HIV risk assessment. These may be the reasons why older patients are more often “late testers”—peo-
Brave New (Old) World
Michelle Cataldo, LCSW, Clinical Editor

This summer is offering many of us who work in the HIV field (especially those of us based in California) the opportunity to further develop our coping skills. Funding cuts, reductions in services to our clients, and, for many of us, the loss of our own jobs are all realities of life to which we must adapt. The one thing that we have some control over is our response to this new world—our struggle to maintain our sense of purpose and community even as scarcity threatens and the ground shifts under our feet.

Our clients have never been strangers to the process of continuous change and adaptation, loss and renewal. HIV itself is complex and often unpredictable, and its treatment is constantly evolving, with new medications entering the market more rapidly than ever before.

A more predictable evolution that people living with HIV face is aging with a chronic illness. While growing old with HIV was little more than a dream when I entered the field 18 years ago, today, happily, it is commonplace. Yet it brings its own set of challenges, both physical and emotional. In this issue of FOCUS, Mark Simone and Jonathan Appelbaum update us on the medical concerns that HIV-positive people over 50 face, including cardiac, blood sugar, and neuropsychiatric disorders. Simone and Appelbaum also remind us that many health care providers are slow to recognize HIV transmission risk among people in this population.

On the emotional front, in addition to HIV-related stigma, and other marginalizing experiences (racism, homophobia, gender and class discrimination), there’s an added obstacle: ageism in a youth-crazy culture. Also in this issue, David Vance and Teena McGuinness explore the psychosocial toll that aging with HIV can exact, particularly in terms of diminished social networks. They also describe some of the coping and adaptation strategies people aging with HIV can employ. Many of the answers to the problems they explore lie in familiar places—making friends with uncertainty, finding meaning in challenges and ways to support each other, and, along the way, pioneering what this brave new world of aging with HIV will look like.

References


4. HIV Prognosis and Treatment

Aging itself weakens some parts of the immune system. For example, with age, CD4+ cell counts drop, and the ratio between CD4+ and CD8+ cells shifts. This may be part of the reason for more negative outcomes among older HIV-positive adults than among younger ones.

Prior to the use of combination HIV antiretroviral therapy, older adults with HIV had worse outcomes than younger adults, including poorer survival rates and more rapid progression to AIDS. Age is less of a factor in predicting treatment outcomes today, although older adults sometimes still respond differently to treatment than other age groups. Many studies, however, show no difference in clinical outcomes for older adults treated with HIV antiretroviral therapies.

Older adults maintain better adherence than younger adults to HIV antiretroviral therapies despite a higher risk of adverse events such as medication side effects and the presence of other illnesses that make the treatment of HIV more complex. These co-occurring illnesses, along with the normal aging process, increase the likelihood of drug toxicity and interactions between drugs. However, age and the presence of co-occurring illnesses should not be a deterrent to the use of HIV antiretroviral therapy. A recent study found that older patients were no more likely to discontinue antiretroviral therapy than younger patients (although when discontinuation did occur, older adults on average discontinued 7.7 months earlier than the younger cohort).

Toxicities more likely to occur in older patients in this study included neurologic (nervous system), psychiatric, and hematologic (blood-related) adverse effects. Conditions more common in older adults such as kidney, liver, and heart disease can also interfere with drug metabolism and increase the risk of toxicity or interactions between drugs. Changes in drug metabolism simply associated with normal aging can also increase the potential for toxicity.
Medical providers often do not adequately assess older patients’ HIV risk behaviors—perhaps one reason that these patients more often enter treatment with advanced HIV disease.

Communication

Communication between health care providers and patients is critical for all aspects of HIV care. To reduce the risk of HIV transmission, providers must discuss HIV risk behaviors and specific prevention methods (such as safer sex practices) with their older patients.

Thorough medical histories that include questioning of older adults about sexual behavior, sexual orientation, and drug use are necessary for appropriate screening. And because HIV is a chronic illness, there must be an open and trusting relationship to allow the patient to discuss concerns related to adherence and medication side effects.

Co-Occurring Illnesses and HIV

Many illnesses become more common with age. HIV infection and perhaps its treatment may accelerate the deterioration of physical systems—as though a person were aging more rapidly. Abnormal cholesterol (dyslipidemia), diabetes, reduced bone density (osteoporosis), kidney and liver diseases, psychiatric illness, neurocognitive impairment (dementia), and coronary artery disease are all more likely to occur earlier in HIV-infected individuals. Routine general medical care and prevention are critical to the health maintenance of older HIV-positive adults, as described below.

Cardiovascular disease. Coronary artery disease is the most common cause of death in people over the age of 65. There is general consensus that HIV itself and its treatment modify the traditional risk factors and increase the risk of early coronary artery disease. The mechanisms for this are unknown. It may be due to an unrecognized feature of the HIV virus or an increase in traditional coronary artery disease risk factors among HIV-positive people. Protease inhibitors are especially associated with an increased incidence of heart attack, but some other HIV antiviral therapies may also increase the risk. However, traditional coronary artery disease risk factors (hypertension, abnormal cholesterol, diabetes, and smoking) contribute more to the risk of coronary artery disease than HIV-related factors, so reducing traditional risk factors, particularly smoking, is important in caring for patients with HIV.

Glucose intolerance. Disorders of glucose (or “blood sugar”) metabolism—such as insulin resistance and diabetes—are associated with aging. Some HIV antiviral medications, particularly protease inhibitors, also induce these conditions. Screening for glucose intolerance with fasting glucose levels is recommended before and after HIV antiviral therapy initiation, and at regular intervals thereafter. Management options include switching to another antiretroviral regimen and following the American Diabetes Association’s medication guidelines for diabetes treatment.

Hypertension. Many investigators feel that hypertension in HIV disease was uncommon before the advent of HIV antiviral therapy. Most recent data suggest that the incidence of hypertension in people with HIV overall is similar to that of matched controls, but is higher in HIV-positive patients with metabolic syndrome (people who experience insulin resistance and who are overweight with abnormal cholesterol profiles). Treatment of older HIV-positive patients with hypertension should be as aggressive as it is for non-infected individuals: lifestyle modification (diet, weight reduction, salt restriction) and antihypertensive medications.

Dyslipidemia. Abnormal cholesterol (lipid) profiles are common in HIV-positive people. Both HIV infection itself and HIV antiviral therapy can adversely affect the lipid profile. Management follows the standard guidelines for HIV-negative adults, but HIV-positive adults tend to have a weaker treatment response to lipid-lowering therapy in newly prescribed antiretroviral drugs.
erking medications. For patients requiring medication therapy, statins are generally recommended. Providers must be aware, however, of potential drug interactions between certain statins and protease inhibitors that increase the serum levels of some statins and increase toxicity. For example, simvastatin and lovastatin are contraindicated with any protease inhibitor, and lower doses of other cholesterol-lowering medications are often recommended. Switching patients to a different antiviral regimen that is less likely to cause this side effect is also an option.

**Bone disease.** While bone density decreases with age in both men and women, HIV-positive adults have significant bone density loss compared to age-matched HIV-negative controls. There may be an association with certain HIV antiviral medications and the development of bone loss. For example, tenofovir is associated with bone mineral density decline, which stabilizes after the first year of use. Management of bone loss appears to be the same as in HIV-negative individuals.

**Neuropsychiatric disease.** Age is the greatest risk factor for the development of dementia, but older adults with HIV are also susceptible to dementia from HIV-related disease. (HIV-associated dementia was recently reviewed in the Summer 2008 publication of FOCUS.) As patients with HIV age, they are also susceptible to more common degenerative forms of dementia, such as Alzheimer’s disease. Doctors should test patients with early-onset dementia (dementia occurring in someone younger than 60 years old) for HIV. In addition, any patient with dementia who reports risk factors for HIV should be tested.

Epidemiologic studies suggest that adults with HIV have higher rates of major depression, generalized anxiety disorder, substance abuse, and possibly psychotic disorders and post-traumatic stress disorder. Treatment with certain HIV medications such as efavirenz has been associated with depression and other neuropsychiatric side effects. However, little is known about the prevalence of mental health disorders in older adults with HIV and the relationship between aging, HIV, and psychiatric illness. Studies suggest that older adults with HIV may have more fragile social support networks because they may be more likely to live alone, lack a partner, and rely on friends rather than family. Further research is needed to better characterize the psychosocial impact of HIV in older adults and how best to address their needs.

**Chemical dependence.** Alcohol and drug abuse are a significant and underestimated health problem in older patients. In the general population, HIV infection is often accompanied by substance abuse, with one-third of new HIV cases attributed to intravenous drug use. While aging, substance abuse, and HIV can each affect cognitive and psychological function, the combination of risk factors may increase the risk of brain injury. Aside from the added affects of aging, the intersection of chemical dependence and mental health conditions does not appear to be any different in the older HIV-positive person than in the younger HIV-positive person; however the need to consider substance abuse, mental illness, cognitive impairment, and HIV as potential co-occurring illnesses is a challenge in providing comprehensive geriatric care.

**Conclusions**

The prevalence of HIV in older adults is increasing and will continue to increase in the years to come. With better treatment, people infected with HIV are living longer with the disease. Unfortunately, older adults are also acquiring the disease at increasing rates, and often the diagnosis is not made as early as in younger patients. In response to this phenomenon, providers must be mindful of the prevention, testing, and health care needs of older adults who are at risk for HIV and those who are HIV-positive.
Aging with HIV: Key Psychosocial Factors
David Vance, PhD, MGS, and Teena McGuinness, PhD, CRNP

Many HIV-positive people, who are living longer than ever before, face not only the many challenges of living with HIV, but also those of aging with it. While much remains unknown regarding the intersection of the aging and HIV disease processes, this article begins to explore some of the factors that threaten and support successful aging with HIV.

What Is Successful Aging?
Successful aging means maximizing existing abilities and minimizing difficulties associated with age-related losses. At the University of Alabama, Tuscaloosa, researchers proposed that successful aging requires four essential components: prevention of disease and disability, active engagement in life, optimal cognitive and physical functioning, and spirituality within a developmental context. However, being diagnosed with HIV represents a barrier in each of these areas. On the physical front, HIV may lead to disease and disability. Lifesaving medications can simultaneously increase the risk for diabetes and cardiovascular, renal, and liver disease. In the social arena, the stigma attached to both aging and HIV may discourage a person from actively engaging in life. Similarly, judgments of HIV-positive people as “lewd” or “sinful” may cut these individuals off from their spiritual communities and their own spiritual development. These physical, social, and spiritual conditions can remove people with HIV from others, leading to isolation. Lack of social stimulation, together with the risk of vascular disease and HIV-related neurological challenges, places those aging with the disease at increased risk of cognitive declines. Such declines, in turn, hinder a person’s ability to negotiate the social and physical environment, making isolation more complete.

Successful aging with HIV, like successful aging in general, does not mean an attempt to stop the aging process, but rather means focusing on building personal and social resources to achieve the highest quality of life. This article describes some of the psychosocial challenges of aging with HIV, and suggests coping strategies for improving quality of life. Dealing with the biopsychosocial challenges of aging with HIV requires the older adult to be creative in compensating for conditions that cannot be altered and to adapt to or cognitively reframe conditions over which the person can exercise some control.

Challenges to Successful Aging
Besides the physical challenges of HIV disease, some of the key obstacles to successful aging that many HIV-positive adults face include ageism and HIV-related stigma, financial and vocational distress, loss of social support, and depression and suicidality. These difficulties, as discussed below, may interact to create an experience of marginalization and isolation.

Ageism and HIV-Related Stigma. HIV-related stigma labels HIV-positive people as “dirty,” “immoral,” or otherwise “tainted.” Similarly, ageism causes older adults to feel “unwanted,” “undesirable,” or “unproductive.” This combination of marginalizing experiences (together with any others the person experiences because of gender, economic status, race, or sexual orientation) can have a negative impact on the individual’s sense of self and connection to the community. In west central Florida, a 2002 study of 172 older adults found that the combination of HIV-related stigma and ageism influenced whether participants would seek assistance from organizations, friends and family, and religious institutions. Some participants remarked that they felt invisible because educational and outreach information was clearly targeted toward younger people. This feeling of invisibility may be exacerbated by the reactions of some medical and social service providers. For example, many participants experienced difficulty disclosing their HIV status to providers because they encountered the attitude that an older person “should have known better than to contract HIV.”

Financial and Vocational Distress. In the current economy, financial hardship is widespread—and older adults with HIV may be hit especially hard. In the 2002 study cited above, 63 percent of the 172 HIV-positive participants stated that “not having enough money to live on” was the foremost difficulty they faced in living with HIV. Unfortunately, medication side effects, fatigue, and other co-occurring illnesses, patchy work histories, obsolete job skills, and ageist attitudes often make it particularly challenging for older adults with HIV to reenter the workforce. Even if they find a job, the prospect of finding employment that not only supports them, but also builds financial reserves for retirement

References
is small. Securing employment may also result in loss of entitlement benefits.

Beyond these survival concerns, work is a key part of many people's identity, and being unable to find adequate work often makes people feel devalued in their relationships with themselves and with others. In addition, the lack of financial resources restricts individuals' ability to engage in some social activities, and the lack of employment also reduces the potential for social support through a network of work-related contacts. All of these factors may contribute to more restricted social networks for older adults living with HIV.

Restricted Social Networks. Illness, unemployment, stigma, social withdrawal, depression, and poor body image can all act to separate older adults living with HIV from potential sources of support. Social withdrawal and loneliness have been observed with increasing age and HIV. In a 2005 study of 160 older New Yorkers with HIV, researchers found that most (71 percent) lived alone, and their primary social supports were mainly friends who also had HIV. Although it would seem that having HIV in common would create a bond of closeness in those relationships, 57 percent reported that their emotional needs remained largely unmet. The researchers concluded that the social networks of older adults with HIV are fragile in that they lack many of the more traditional social supports that help with successful aging. In this regard, those aging with HIV may withdraw from traditional social supports due to age and HIV-related stigma, contributing to their marginalization from more traditional social supports.

Co-occurring illnesses increase with age, particularly for people with HIV. In a recent study at the University of Alabama at Birmingham, researchers examined the medical records of 1,478 patients from an HIV clinic and noted the prevalence of co-occurring conditions across each decade of life. Medical conditions that were particularly prevalent with age were high blood pressure, high cholesterol, coronary artery disease, decreased production of sex hormones, erectile dysfunction, diabetes, nerve pain and numbness in the hands and feet, hepatitis C, kidney disease, and condyloma (a genital wart caused by human papilloma virus). These conditions can create physical and sexual limitations that restrict social interaction. Fatigue due to hormonal and metabolic changes is also associated with both aging and HIV and reduces the energy needed to engage in social activities. Finally, changes in appearance, due to aging or HIV medication-related lipodystrophy, may cause mild to severe changes in appearance, which negatively affect one's body image and sense of self, reducing the motivation to engage in activities that promote and maintain social networks.

It is well established that a significant, intimate relationship is probably one of the best buffers against stressors such as financial distress, poor health, and loneliness. Furthermore, being in a relationship provides opportunities to extend one's social network through interaction with one's partner's family, friends, and co-workers. Yet, researchers in the above-cited 2005 New York study found that fewer than half of HIV-positive older adults were in a committed relationship. Fears about disclosing HIV status, which may be especially difficult for older adults, may thwart the ability to form intimate relationships.

Depression and Suicidality. Many of the physical and psychosocial difficulties discussed above can cause depression in some older adults with HIV. In the 2005 study cited above, 58 percent of participants reported being currently depressed; this figure is telling when compared with the 5 percent to 10 percent of the non-HIV elderly population who experience depression and dysthymia disorders. Such depression may lead to suicidality. In the 2002 West Central Florida Survey of Middle-Age and Older Adults with HIV cited earlier, 17

Comments and Submissions

We invite readers to send letters responding to articles published in FOCUS or dealing with current AIDS research and counseling issues. We also encourage readers to submit article proposals. Send correspondence to rob.marks@ucsf.edu or to Editor, FOCUS, UCSF AIDS Health Project, Box 0884, San Francisco, CA 94143-0884.
Personal Coping Strategies

Despite the difficulties of aging with HIV, a number of personal coping strategies and individual resources seem to mitigate the negative effects of such stressors. “Crisis competence” is a coping resource that many people develop over time in response to dealing with other stressors. For example, it has been suggested that gay people who overcame obstacles to accepting their sexual orientation were better equipped than their heterosexual counterparts to cope with their aging status. Certainly many of the people living with HIV have experienced social marginalization due to HIV-related stigma and other obstacles, including homophobia, racism, poverty, and physical disability. In response, many HIV-positive people have developed skills that may help them to overcome some of the stressors that they experience while aging with HIV. There are limits to “crisis competence,” however. Researchers at the University of Alabama suggest that people may also respond by feeling overwhelmed by too many crises at once, becoming perpetually anxious about this multiplicity of threats.

Using a spiritual belief system to cognitively reframe HIV can also be an effective coping strategy. A University of Alabama study of the spiritual and religious implications of aging with HIV reported, perhaps surprisingly, that 44 percent of respondents viewed HIV as a blessing. When asked why, many stated that they felt that HIV brought them “closer to God.” Some said that having HIV helped them learn to decrease the negative influences in their lives—including family, friends, or church members who “brought them down,” judged them, or engaged in unhealthy practices. This “weeding out” process may offer another, more positive explanation for the smaller social networks of older adults with HIV observed in earlier studies.

Hardiness

Studies of successful aging in older adults provide insight into the processes of aging successfully with HIV. In a cohort of older HIV-negative women in Australia, researchers found that the characteristic that seemed most related to the concept of successful aging was hardiness. Hardiness is described as possessing three essential components: challenge, control, and commitment. Thus, hardy people see obstacles as a challenge, take control of the things they can change instead of dwelling on the things they can’t, and remain committed to their life goals.

Fostering hardiness in clients may be a way to improve the chances of successful aging with this disease. People aging with HIV must look at their circumstances as challenges, not obstacles. They can recognize areas where they can exert control such as taking their medication, exercising, and eating well, rather than areas where they can’t, such as curing HIV. Since researchers have remarked that commitment is probably the cornerstone of hardiness, those who remain committed to their personal or professional goals have something to which they can aspire.

Researchers at the University of Alabama proposed that hardiness is not a static trait, but a resource that fluctuates in response to the amount and difficulty of the stressors a person confronts. Internal resources such as spirituality, social support, creativity, and financial assets support hardiness, and these can be depleted in response to declining health, stigma, and medical bills. Likewise, hardiness can be increased by nurturing one’s sense of control, commitment, and challenge, and by reducing the impact of such stressors.

Clinicians can help clients identify their own successful responses to past challenges and to draw on appropriate strategies, while integrating new ones. Physical coping strategies, such as exercise, and cognitive approaches, such as repeating mantras, as well as listening to upbeat music and viewing examples of positive coping can all be useful in supporting hardiness.

Conclusion

Social service and health care professionals can assist clients aging with HIV by recognizing both their unique challenges and internal and external coping resources. The psychosocial needs of older adults with HIV are complex and vary from person to person, yet understanding these needs can help us mitigate the challenges to their successful aging in this growing population.
Related Resources

Journal Articles


Explores the relationship between neuropathy incidence and antiretroviral treatment in a meta-study of 2,135 participants. Finds greater susceptibility to neuropathy as age and years of treatment increase.


Author studied 25 HIV-infected adults aged 50 to 72 years from the Pacific Northwest to explore how HIV stigma affects coping mechanisms, behaviors, self-image, and interpersonal and psychosocial issues. African-Americans and participants with an AIDS diagnosis had significantly higher scores on a 40-point instrument measuring stigma experiences. Argues for HIV practitioners and service providers to thoroughly assess stigma in older populations and to work with patients as partners instead of receivers of care.

Web Sites and Presentations


This 45-minute multimedia presentation reviews the epidemiology and progression of HIV in older adults, including immunologic similarities between HIV and aging, age and non-HIV-related medical conditions, and approaches to medical care for older adults living with HIV.

Services and Advocacy for Gay, Lesbian, Bisexual and Transgender Elders (SAGE). http://www.sageusa.org/index.cfm. Global nonprofit agency that advocates and provides services for the specific needs of lesbian, gay, bisexual, and transgender elders. Services include case management, counseling, a caregiver program, and support groups to enable a welcoming and “culturally competent” community. SAGE also advocates at the national level to set federal policy agendas.

Next Issue

Despite performing with mixed results in clinical trials, biomedical interventions such as microbicides, vaccines, circumcision, and pre-exposure prophylaxis (PrEP) continue to hold some of the HIV community’s most fervent hopes for stemming the tide of new infections. But how close are we to realizing the promise of such interventions, and how great is their impact on incidence likely to be? And does the availability of effective biomedical prevention interventions cause individuals to engage in “riskier” behavior because they feel sufficiently protected, as some fear?

In our Fall issue, Sandra I. McCoy, MPH, PhD, Epidemiologist at the Women’s Global Health Imperative at RTI International and Nancy S. Padian, MPH, PhD, Executive Director of the Women’s Global Health Imperative at RTI International, and Adjunct Professor at the School of Public Health at the University of California at Berkeley, offer an update on the status of several key biomedical interventions.

Also in our Fall issue, Matthew Hogben, PhD, Chief of the Behavioral Interventions and Research Branch, and Sevgi O. Aral, PhD, Associate Director for Science, both of the Division of STD Prevention at the Centers for Disease Control and Prevention, take a closer look at the idea of “risk compensation”—what the term means, whether the phenomenon exists, and if it matters to how we envision the future of prevention.