The Changing Face of HIV Care: Common Things Really Are Common

The management of HIV infection has advanced dramatically since its discovery. The HIV Outpatient Study (HOPS) highlighted the statistically significant decrease in HIV-related morbidity and mortality, which was attributed to improved prophylaxis against opportunistic infections and the introduction of a potent combination of antiretroviral therapies (highly active antiretroviral therapy [HAART]) (1). The results from HOPS and other studies began a shift in the delivery of care for persons with HIV infection (2–5). The initial Agency for Health Care Policy and Research guidelines for managing HIV infection did not discuss vaccination because vaccinating a population that was unlikely to survive long enough to receive benefit was not cost-effective (6). Not only do the HIV primary guidelines now recommend vaccination, but documentation of hepatitis and pneumococcal vaccination are part of the American Board of Internal Medicine HIV Practice Improvement Module that is required for recertification (7). The physician of choice has also changed. Early in the HIV epidemic, primary care providers referred their HIV-infected patients to HIV experts (usually infectious disease physicians or physicians who provided care to more than 20 HIV-infected patients) to manage HIV-related conditions, oncologists to manage HIV-associated malignant conditions, and palliative care specialists. These HIV experts found themselves in unfamiliar territory as their patients were developing age- or sex-specific non–HIV-related conditions, such as hypertension, cancer, diabetes, and coronary heart disease (CHD). The antiretroviral medications were associated with dyslipidemia, diabetes, and neuropathies (8–10). The HIV experts found that they had to either refamiliarize themselves with general primary care or refer their patients to primary care providers. In recognition of the need for a paradigm shift, the Infectious Diseases Society of America and the HIV Medicine Association released primary care guidelines for persons with HIV in 2004 (7).

Manfredi (11, 12) contributed to the emerging paradigm by suggesting that the life expectancy of HAART-treated, HIV-positive people now approximated that of the general population. He noted the challenges faced by physicians as the HIV population aged and developed common, age-associated chronic diseases in addition to atherogenic dyslipidemias that are associated with HIV infection and its therapies. Other researchers continue to argue whether the metabolic complications that are associated with HIV infection and its therapies are somehow different from the metabolic diseases (for example, diabetes and hyperlipidemia) in the noninfected population. In any case, people with HIV infection are living longer in a state of health in which they may eat more and become overweight and may develop the same consequences of hypertension, diabetes, hyperlipidemia, and ultimately CHD as those of persons without HIV infection. But the skeptics still ask: “Where is the proof that we should treat HIV-infected patients as if they were subject to all of the ills of uninfected persons?”

In this issue, Sackoff and colleagues (13) answer these skeptics. They report that among those with HIV infection in New York City, the percentage of deaths due to non–HIV-related conditions increased significantly from 19.8% to 26.3% \((P = 0.015)\) between 1999 and 2004. Furthermore, 76% of the deaths due to non–HIV-related conditions were attributed to substance abuse, cardiovascular disease, and age-appropriate malignant conditions. The authors performed a population-based analysis by using data from 2 registries: the New York City HIV/AIDS Reporting System and Vital Statistics Registry. The authors acknowledge the inherent flaws of using death certificates and retrospective data, but I suspect that they actually underestimated the number of non–HIV-related deaths. The authors excluded only 1.8% of the total deaths because of an unknown underlying cause. As a clinician practicing in a teaching hospital, I find that obtaining consent for autopsies has become more difficult, and we frequently attribute deaths to HIV infection when we don’t know the precise cause. Nevertheless, Sackoff and colleagues’ analysis supports the general impression that HIV infection is becoming a chronic disease and that persons with HIV infection are living longer. In New York City, the rate of HIV-related deaths decreased 54.9% (from 458 deaths to 206 deaths per 10 000 persons with AIDS) and the rate of non–HIV-related deaths decreased by 34.3% (from 120 deaths to 79 deaths per 10 000 persons with AIDS) during the analysis period (13). Despite all the advances in HIV management, many patients with HIV infection still present in the late stages of the disease and experience significant morbidity and mortality. The Centers for Disease Control and Prevention (CDC) recommends HIV testing as part of routine care to identify HIV earlier and get individuals into care before they develop HIV-related conditions (14).

The demographic characteristics of HIV infection in New York City highlight that it remains strikingly a disease of people of color: Only 18.2% of cases in Sackoff and colleagues’ analysis were white. Almost 70% of them were men, the median age was 46 years, and 60% of them lived in poverty. Compared with white people with HIV infection, black people with HIV infection were at statistically significantly higher risk for death, followed by Hispanic people with HIV infection. Mortality rates were lowest among men who had sex with men and were highest among intravenous drug users, which may reflect different rates of adherence to care and medications. Advancing age was a predictor for both HIV-related deaths and non–HIV-related deaths. For non–HIV-related deaths, the rate
was 19.4 deaths per 10 000 persons with AIDS for persons 13 to 24 years of age and dramatically increased to 268.9 deaths per 10 000 persons with AIDS for persons older than 65 years of age.

Sackoff and colleagues’ article provides useful information about predictors of death in HIV-infected patients. By Cox regression analysis, the authors found that the CD4+ T-cell count remains the strongest predictor of HIV-related death, which emphasizes the need to identify individuals as soon as possible after HIV is acquired and the importance of patient adherence to antiretroviral therapy. The CD4+ cell count was also a statistically significant predictor for non–HIV-related deaths, which is consistent with the previously reported finding of increased all-cause mortality in persons with AIDS (15).

Intravenous drug use was an important predictor in both HIV-related and non–HIV-related deaths, which may reflect high-risk lifestyles and failure to obtain routine medical care. Although substance abuse was the most common cause of non–HIV-related deaths, CHD and cancer were the most common causes after statistical adjustment for differences in age at the time of death from different causes. Coronary heart disease was the leading cause of non–HIV-related deaths in persons 55 years of age or older, followed by lung cancer, which was responsible for 6 deaths per 10 000 persons with AIDS among Hispanic people and 12.6 deaths per 10 000 persons with AIDS among black people. The New York City average yearly death rate due to lung cancer is approximately 4 deaths per 10 000 residents, upward to 28 deaths per 10 000 residents for persons 65 years of age or older. The high frequency of lung cancer deaths is consistent with an increase in age- and sex-related cancer among those with HIV infection in previous reports (16–18).

Whether primary care physicians and HIV care specialists have many HIV-infected patients or one, they must develop practice routines to assure a high standard of HIV-related care to all of their patients. We have an aging baby boomer population whose members may not perceive themselves to be at risk for HIV infection, so we need to implement the CDC recommendations for routine HIV testing. We need to teach our non–HIV-infected patients how to avoid acquiring HIV infection and teach our HIV-infected patients how to avoid spreading it (19, 20). We need to maintain a high standard of preventive care regardless of HIV status, which includes modification of risky behaviors, vaccination, chemoprophylaxis, and chronic disease and cancer screening. We need to treat chronic diseases as aggressively in HIV-infected patients as in non–HIV-infected patients. As our aging HIV population develops other common comorbid conditions, we will have to deal with interactions between HIV medications and chronic disease medications. Finally, we must know how to address the concerns of people who recently receive a diagnosis of HIV infection, especially questions about their prognosis and the type of life that they can expect. Now more than ever, HIV care is primary care.

As I read Sackoff and colleagues’ paper, I thought of words of wisdom I acquired through the years of my training: “Never reject the obvious” and “Common things are common.” Why should HIV be any different? Sackoff and colleagues point to the obvious: Common things are common. Developed countries are experiencing an epidemic of conditions: obesity, CHD, diabetes, and lung cancer. Physicians everywhere must remember that most of their HIV-infected patients will survive to develop the diseases that plague the rest of us.

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