Quality Primary Care for HIV/AIDS

How Much HIV/AIDS Experience is Enough?

Who is qualified to provide primary care for patients with HIV/AIDS? Those who have done residency training in a specific specialty, those who have completed a fellowship in a specific subspecialty, or those with a certain volume of clinical experience caring for HIV/AIDS? In this issue of the *Journal*, Kitahata et al. provide compelling continuing evidence of the importance of physicians' HIV/AIDS clinical experience in predicting their primary care patients' long-term survival with AIDS.¹ In this study, Kitahata et al. examined the utilization patterns of 197 male AIDS patients cared for by 83 primary care physicians at Group Health Cooperative, a staff model HMO. They found that both primary care utilization patterns and physician HIV experience were significantly associated with patient survival. Specifically, the physicians with the most HIV experience saw their patients more frequently; after controlling for severity of illness, the patients of the most experienced physicians were twice as likely to have a primary care visit in a given month as were the patients of the least or moderately experienced physicians. In addition, patients of the most experienced physicians also had significantly longer survival times with AIDS than did patients of the other physicians (26.1 months compared to 17.0 months for moderately experienced and 16.5 months for least experienced). Even after controlling for these differences in utilization patterns, the survival advantage of those cared for by the most experienced physicians persisted. Among patients with infrequent visits, those cared for by least experienced physicians were 15.3 times more likely to die than patients of the most experienced physicians; and of patients with frequent visits, patients cared for by least experienced physicians were 1.9 times more likely to die than patients of the most experienced physicians. These findings suggest that the most experienced physicians were able to target the level of primary care visits to patient needs and thus achieve better outcomes compared to the other physicians.

In the early 1990s, in a series of studies examining the relationship of hospital HIV/AIDS experience and outcome, principally inpatient mortality, it was first documented that HIV/AIDS experience makes a difference in outcome for those living with HIV/AIDS.²⁻⁴ These studies documented dramatic differences in mortality related to the HIV/AIDS experience of the treating facility. Many assumed during those early years of the HIV/AIDS epidemic that multiple institutional factors, of which physician expertise was probably only one small component, contributed to the survival of HIV patients during hospitalizations for HIV/AIDS clinical complications. At that time, the primary care that HIV/AIDS patients received between hospitalizations was thought to

have little influence on their ultimate survival with HIV/AIDS.

However, with the adoption of widespread use of prophylaxis to prevent opportunistic infections, along with antiretroviral treatment (whose survival impact was hotly debated), the content of HIV/AIDS primary care began to be more important. Kitahata et al. showed that at that critical juncture, the HIV/AIDS experience of the treating primary care physician was, in fact, quite important and had a strong relationship to the long-term survival of the patient.⁵

Since then, the care of HIV/AIDS has changed enormously with the advent of highly active antiretroviral therapy (HAART). Appropriate use of HAART has been linked to dramatic declines in death for patients on an aggregate basis and dramatic increases in survival on an individual basis.⁶ Furthermore, use of HAART has been associated with declines in hospitalizations of those living with HIV/AIDS, and a resulting shift of most HIV/AIDS care to the ambulatory setting.⁷ In light of these advances, HIV/AIDS patients' treatment in the primary care setting is now not just important, it is critical, in shaping these patients' outcome and long-term survival. Given this, it is quite timely to attempt to measure the impact of primary care on survival with HIV/AIDS as Kitahata et al.¹ have done.

Several recent studies have already examined this issue and demonstrated that primary care physicians' HIV experience is strongly predictive of the quality of the care they provide for HIV/AIDS patients.⁸⁻¹¹ Use of HAART when indicated was found to be significantly greater by physicians with more HIV/AIDS experience for both hypothetical patients and their own HIV/AIDS patients.⁸⁻¹¹

While these studies documented the importance of physician experience by showing its relationship to the key process measure of quality of care during the current era of HIV/AIDS treatment (use of HAART), the study by Kitahata et al. is the first to demonstrate an association of outcomes to physician experience in the HAART era.¹ Furthermore, this study also showed that an important process measure of primary care, number of primary care visits, also was related to physician HIV/AIDS experience. Unlike other recent studies, however, it did not examine the content of the primary care provided (e.g., prescribing of HAART versus inappropriate antiretroviral regimens).

Despite this important contribution of Kitahata et al.¹ to the literature on HIV/AIDS quality of care, key aspects of this study raise concerns about generalizability. The mix of providers differed substantially from national trends regarding the provision of HIV/AIDS primary care. While studies have shown that most HIV/AIDS patients receive their primary care from general internists or

infectious disease physicians,^{7,11} this study was comprised of 87% family physicians.

HIV/AIDS experience was defined as the cumulative lifetime number of HIV patients cared for by the physician (including during residency). The group of physicians in this study had cumulative HIV experience ranging from 1 to 21 patients, with relatively low levels of experience even in the "most experienced" group of physicians. In contrast, other recent studies of HIV experience have categorized the "most experienced" group as those with 50 or more current patients,⁹⁻¹¹ and have demonstrated trends of improving quality of care with each increasing level of experience. So while the physicians in this study with more experience did better in terms of outcomes, we can conclude little about the optimal amount of HIV/AIDS experience in light of other studies demonstrating a benefit of much higher levels of HIV experience. The question of how much HIV/AIDS experience is enough for optimal HIV primary care has recently generated considerable interest on the part of payors, policymakers, and states in their efforts to determine which physicians are "qualified" to provide HIV/AIDS primary care, and HIV physician organizations have sought to contribute constructively to this debate.¹²

In summary, Kitahata et al. provide evidence of the continuing importance of physician HIV/AIDS experience in AIDS care by demonstrating a clear link to outcome in the era of HAART. The question of how much HIV/AIDS experience is enough or optimal remains unanswered and awaits further research examining the interrelationship between physician HIV/AIDS experience, processes of care such as provision of HAART, and outcomes of care across a wide range of physician HIV/AIDS experience.—
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