

HIV Infection: Still a Disease for Experts

Joel E. Gallant

Southwest CARE Center, Santa Fe, New Mexico

(See the HIV/AIDS Major Article by O'Neill et al on pages 1871–7.)

Keywords. HIV; AIDS; expertise; primary care.

For decades, human immunodeficiency virus (HIV) infection was viewed as a disease that should be managed by experts. This was based on the multitude of potential complications, the complexity of antiretroviral drug regimens and their toxicities, the need for understanding of drug resistance, and the numerous interactions between many HIV drugs and other commonly used medications. This assumption was supported by data showing improved outcomes, prolonged survival, and lower costs when HIV-infected patients were managed by experts [1–6].

The term “HIV expert” was never well defined, because there is no specialty board for HIV medicine. HIV experts have included infectious disease specialists, family practitioners, internists, pediatricians, as well as nonphysician providers such as nurse practitioners and physician assistants. The HIV Medicine Association and the American Academy of HIV Medicine (AAHIVM) have attempted to define HIV expertise using a combination of provider experience (patient

volume) and HIV-specific continuing medical education (CME). The AAHIVM also requires passing of an open-book exam for certification as a “practicing HIV specialist.”

In recent years, the need for HIV expertise has been questioned. It has been argued that the earlier studies don't apply in an era when we can treat HIV infection with simple, well-tolerated regimens, including several single tablet combinations. Virologic failure is now less common, making it less important to have a thorough understanding of drug resistance. Many of the recommended treatment regimens have few drug interactions. At the same time, the Affordable Care Act (ACA) makes it possible for most HIV-infected patients to be covered by private insurance or Medicaid, lessening the need for reliance on HIV clinics funded by the Ryan White HIV/AIDS Program (RWHAP). Those on Medicaid will increasingly be treated in Federally Qualified Health Centers (FQHCs), which may not always have providers with HIV expertise. These factors have encouraged many to talk about HIV infection as a “primary care disease.”

The study by O'Neill and colleagues in this issue of *Clinical Infectious Diseases* [7] suggests that it is premature to reclassify HIV infection as a disease that can be managed by generalists. The authors compared outcomes of HIV-infected patients in New York state who were treated by low volume providers (LVPs), defined

as clinicians prescribing antiretroviral therapy (ART) to less than 20 patients, with those managed by more experienced providers, caring for at least 20 patients. They found 368 providers who confirmed that they were providing HIV care for less than 20 patients (average 4.3). Of those, 84 submitted the medical records of 320 patients for review. Those records were compared with records from experienced providers, randomly sampled from 186 HIV programs. Performance measures were based on DHHS (Department of Health and Human Services) guidelines in place at the time. Patients of LVPs were less likely to be virologically suppressed and had lower scores for all quality of care indicators, including frequency of clinic visits, viral load and CD4 count monitoring, and mental health and syphilis screening. The authors point out that there may be a selection bias affecting their findings in that those providers who responded to the survey and agreed to provide patient records may have been more confident of the quality of their care than those who did not, potentially hiding even greater discrepancies between LVPs and experienced providers.

It has been argued that 20 patients may be an unreasonable standard for rural areas. However, in this study, although patients living outside the New York metropolitan area were more likely to be cared for by LVPs, nearly three-quarters of the LVPs were practicing in the metropolitan area, where there is no shortage of HIV experts.

Received 6 August 2015; accepted 11 August 2015; electronically published 30 September 2015.

Correspondence: Joel E. Gallant, MD, MPH, Southwest CARE Center, 649 Harkle Rd, Ste E, Santa Fe, New Mexico (jgallant@southwestcare.org).

Clinical Infectious Diseases® 2015;61(12):1878–9

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DOI: 10.1093/cid/civ724

This is the first study to assess the effect of provider expertise on quality of care in a large state or public health jurisdiction, and it is also the most contemporary. The data collected were based on antiretroviral therapy (ART) prescribed in 2009. Although significant improvements have occurred in the last 6 years, 2009 is still part of the “modern ART era,” characterized by simpler, better tolerated, and less toxic treatments.

Why the difference? The obvious answer is simply greater experience and knowledge among providers who treat more HIV-infected patients. However, other factors may also play a role. Providers caring for more HIV-infected patients may be working in environments with support services, including behavioral health services, substance abuse treatment, case management, and adherence support: the kind of “wrap-around” services typically found in Ryan White clinics. They may also have more access to on-site HIV education and expert supervision.

Our healthcare environment is rapidly changing. HIV-infected patients are increasingly likely to be managed by generalists in FQHCs or primary care practices rather than in Ryan White clinics. The number of clinicians choosing HIV care as a profession is shrinking. In such a climate, how do we maintain high-quality HIV care, which is critical not only for the health of patients but also for decreasing HIV transmission and controlling the epidemic? In urban and suburban areas, clinics must recognize the importance of HIV expertise, either by hiring experts or by supporting HIV training by some of their providers. This may include attendance at HIV courses or preceptorships in existing HIV clinics as well ongoing HIV-specific CME. Co-management by primary care providers and HIV experts is underutilized, and is especially important in rural areas where there may be no experts. This can be achieved either by

infrequent visits with an expert, regular communication between the generalist or the expert, or through telemedicine, which must be adequately compensated by third party payers [8]. Teleconferencing programs, such as Project ECHO, can be used to build expertise among primary care providers and budding HIV experts through regular lectures and case presentations.

The findings from the O’Neill study emphasize the critical need for implementation of HIV-specific quality measures—most importantly viral load suppression—by public and private insurers. They also make a strong argument for continued funding for the RWHAP. Although some have argued that the RWHAP is unnecessary after passage of the ACA, Ryan White clinics have become centers of excellence for HIV care and have provided training for HIV providers over several decades. They offer support services that may not exist in other healthcare settings and that have been critical in keeping HIV-infected patients retained in care and virologically suppressed: the key components of treatment-as prevention [9–11]. Attempts have also been made to solidify and formalize the definition of an HIV expert, including the proposal for a board exam that would provide “focused practice recognition” to providers from a variety of disciplines. However, for such recognition and certification to have meaning, private and government insurers would have to recognize the value of HIV expertise, making it an indicator of quality care.

Diagnosing HIV infection, enrolling and retaining patients in care, and suppressing their viral loads on ART are fundamental to controlling the HIV epidemic. HIV care may be easier than it used to be, but it is still complex. This is no time to relax our standards and turn HIV care over to generalists. HIV infection should still be managed—or co-managed—by experts.

Note

Potential conflict of interest. The author is the Immediate Past Chair, HIV Medicine Association.

The author has submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

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