

The changing HIV epidemic: a view from the front line in the United States

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Last month, Dr Gary Miles retired from the Immune Clinic at the VA Palo Alto Health Care System. The Immune Clinic cares for HIV-infected veterans and Veterans with AIDS. Dr Miles is a psychologist, and during the past 30 years, he worked to provide mental health care and support for HIV-infected veterans. I respect his work and when he retired, the clinic lost a key professional, and it made me think of all the individuals through the years who have worked together at an HIV/AIDS clinic. Team members dedicated to a common purpose, the care of people with HIV and AIDS, included registered nurses, psychologists, licensed vocational nurses, nurse practitioners, physician assistants, receptionists, social workers, pharmacists, administrative staff, physicians and trainees. Teamwork among professionals co-located in one physical location represented a new model of care that was developed at Ward 86, San Francisco General Hospital and was adopted by other HIV clinics.

The collaborative nature of HIV care was an outgrowth of the needs of patients and reflected the chaotic nature of a newly identified epidemic. What made team work imperative was the unusual manifestations of immune suppression; the complex medication regimens; the psychological needs of these desperately ill people and the social isolation of the patients. Yet, there was another compelling reason for this collaborative model, and it was not commonly voiced. There were so many young people dying, so little we could do to help our patients that the strain for caring for persons with HIV was overwhelming for the providers. The teamwork eased the sadness we were experiencing as well as lessened the

burdens of caring for these desperately ill people. We supported each other. I know I would have been overwhelmed without working closely among a team of diverse professional colleagues. Thus, although the collaborative teams were developed to help the patients, a critical element included helping the professionals caring for the patients. Would Dr Miles' retirement represent a significant difference to the clinic for our patients and make us all feel less cared for too? Was I ready for the change?

Nowadays it seems simple to take care of HIV-infected persons. One can take the history, perform a physical exam, obtain specific laboratory assessments and prescribe a single pill. One pill once a day for every infected person, no matter the extent of HIV burden or immunologic destruction. It really is amazing. It is also like other clinical situations that are managed by primary care providers (PCP). PCPs, front line providers treating persons, provide care for persons with chronic diseases, such as diabetes, hypertension, congestive heart failure, cirrhosis, depression and chronic obstructive pulmonary disease. Patients with these ailments are commonly cared for in the primary care setting by internists and family physicians and specialists are consulted as needed. Primary care clinics do not co-locate large numbers of peer professionals to provide optimal medical, nursing, psychological, pharmacologic and social care. Maybe this should be the model of care; however, for most health care enterprises the colocation for a large team of professionals may not be feasible. Will primary care, lacking a team-based model, provide the new model for HIV care?

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HIV care is complex but is it too complex for internists and other primary care clinicians? There is a body of HIV-related knowledge to assimilate and clinical judgement to acquire just as in other clinical situations. The medications require specific expertise in pharmacology, and pharmacologists have been critical members of HIV care teams. And yet, primary care physicians work closely with pharmacy professionals to optimize health outcomes and limit drug–drug interactions. Nursing expertise, the empathetic problem solvers of our system, are required for many primary care situations and are especially important for the holistic care of HIV-infected persons. But, are nurses any less important in other common primary care situations? I do not think so. Nurses' clinical astuteness is a key component to helping my patients sustain their health whether they are HIV-infected or not. Social workers remain critical for HIV patients to manage in an ever-changing world, especially with increasing chaos in their individual circumstances, but these same skills are needed for people receiving primary care too. The psychologists' role is central for HIV-infected persons. Psychologists help patients find purpose and meaning, diffuse difficult situations, assist patients as they gain personal perspectives and navigate the mine-fields of retained and dysfunctional coping strategies or memories. These same skills are indispensable for individuals in primary care. The skills needed to provide comprehensive care for HIV-infected individuals are required and are available in the primary care setting.

HIV care does have nuances. One must check for viral resistance to medications, and if resistance is present the choice of medications is more challenging and less algorithmic. An experienced HIV clinician looks for the possible development of an immune reconstitution syndrome when antiretroviral medications are initiated. Most of the clinical competencies required for HIV care can be identified, taught, and the information retained and applied by skilled clinicians. The American Academy of HIV Medicine provides a credentialing process for frontline clinical providers, as well as an HIV Expert designation for nonpracticing clinicians and an HIV Pharmacist certification for HIV-specialized pharmacists. There is also a certification for HIV/AIDS Nursing to improve the quality of HIV/AIDS nursing care and promote nursing competency in the care of persons with HIV/AIDS. None of these certifying exams require additional years of training.

HIV care includes persons at-risk for but not infected with HIV. Pre-exposure prevention (PreP) prevents HIV infection; however, it is complicated and requires visits to the clinic and laboratory tests every 3 months. Are there other situations where primary care physicians can prevent the consequences of an illness so that a solution, if implemented consistently, prevents the late term consequences? Absolutely and this is the bulk of primary

care. Clinicians urge, counsel and provide medications to help their patients to stop smoking and reduce their cancer risk, prevent symptomatic coronary artery disease and avoid chronic obstructive pulmonary disease. Encouraging medication adherence is a common primary care task, and it is particularly critical for persons taking PreP. PreP to prevent HIV is a bit like prescribing statins for hypercholesterolemia; one pill, once a day that is well tolerated without common toxicities. PreP treatment for HIV prevention requires more laboratory testing than statins to treat hypercholesterolemia but PreP is not too complicated for primary care.

Dramatic and unprecedented breakthroughs in the care of HIV-infected persons is a common focus on the changing HIV epidemic. Over time as medications to suppress HIV infection became more accepted and better tolerated, behaviors to increase adherence became easier to manage and our patients became less reliant on the models of care and sadly providers became a bit less reliant on each other. Maybe that is the central issue for new models of care. Clinicians need less support to care for HIV-infected individuals as their medications are effective and there are not as many deaths as early in the epidemic. Are the collaborative teams no longer required to provide care?

Dr Miles considered the development of effective antiretroviral medications to be the greatest triumph in AIDS care; however, he pivoted from the medications that changed HIV care to the changes he witnessed in the behavioral care of HIV-infected persons. No longer were young men selling their life insurance policies when diagnosed with HIV. An HIV diagnosis was no longer an immediate death sentence. The infected men and women, gay and straight, black, brown and white now need a strategy to live. Dr Miles helped his patients develop the skills and perspectives necessary to survive with HIV infection.

There have been numerous achievements in the care of HIV/AIDS that together add up to a modern miracle of HIV care. I have witnessed many of the triumphs associated with modern antiretroviral medication, the self-advocacy of affected communities, and push for effective prevention strategies. I have also witnessed much of the sadness associated with the deaths of so many individuals since the initial identification of HIV epidemic in 1981. I suppose it is inevitable that just as HIV/AIDS treatment and prevention brought changes to how we practice medicine, the models of care would change too; and now the changes to the models seem to be outpacing the achievements in care. And that is the unsettling change associated with Dr Miles' retirement; one of the heroes of the HIV epidemic retired and he was not replaced. There is no dedicated psychologist for the patients or unfortunately to support the providers. Is HIV care ready to move from the past to a new model of care? Am I ready?