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GENERALISTS PROVIDING ANTIRETROVIRAL THERAPY FOR HIV/AIDS

HAVE THE RULES CHANGED?

Valerie E. Stone, MD, MPH

Overview

Over the past 2 years, the standard of care for HIV/AIDS has changed dramatically. One piece of evidence of the rapidity with which changes occurred during this period is that the long-awaited new consensus statement on antiretroviral therapy for HIV infection, released in July 1996 by the International AIDS Society-USA, was outdated and replaced by June 1997.[1] At that time, the International AIDS Society-USA issued a new document that summarized their current consensus regarding antiretroviral therapy.[2] Earlier, within the same month, the U.S. Department of Health and Human Services (DHHS) issued two adjoining documents containing the recommendations of interconnected Federal consensus panels regarding state-of-the-art medical management of HIV/AIDS.[3,4] The recommendations of each of these panels regarding current antiretroviral therapy for HIV/AIDS overall were quite similar.

Now 9 months after these newest guidelines were released, it appears that two observations can be made: 1) The pace of change that characterized antiretroviral therapy for HIV/AIDS in 1996–97 has slowed; 2) What remains is a new level of complexity characterizing antiretroviral therapy for HIV/AIDS which most experts would agree can be expected to persist for the foreseeable future.

By this time, most physicians are aware that there have been marked improvements in HIV/AIDS treatment due to the availability of HIV-1 protease inhibitors and potent combination regimens containing these medications, given the tremendous attention these advances have received in both the medical and the lay press.[5,6] While long-term efficacy studies have not yet been published, there is considerable evidence to suggest that these potent combination antiretroviral regimens containing protease inhibitors are already dramatically improving clinical outcomes, including survival, time to AIDS, deaths due to AIDS, and hospitalization rates for patients with HIV disease.[7–12]

Relevance to Generalists

A substantial proportion of adults with HIV disease are cared for in primary care settings by primary care physicians—either general internists or family physicians. Yet, there have been controversies for more than a decade about who should care for HIV patients—generalists or specialists.[13,14] While these were far from resolved, studies done earlier in the HIV epidemic have shown that it is a physician's experience with HIV disease which predicts the outcome of his or her patients, not the physician's specialty.[15,16]

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Role Models and Medical Education

Scott M. Wright, MD

Social learning theories indicate that role modeling exerts major influences, both positive and negative, on the performance of social behaviors.[1] After observing how others behave (and observing the consequences), we may later choose to imitate their behavior.[2]

Society's discussions about role modeling often relate to professional sports; specifically, which athletes are fine role models for our children and which are not. Role models have also been shown to be important in most jobs and professions. This is felt to be particularly true in medicine.[3–5]

My first experience with role modeling occurred while working at a summer camp in Ontario as "counselor in training" (CIT) coordinator. My job entailed helping fifty 17-year-old boys and girls make the transition from camper to counselor (and keeping them out of trouble). The camp director stressed that the CITs should be role models for the campers (enthusiastic, energetic, and positive), and that I should be a role model to the CITs. When I told him that I wasn't sure how to be a role model he said, "Sure you do, but it's not easy and it's a full time job!"

While in medical school, through 1-month encounters with many different attending physicians, I was exposed to skills and attitudes that I wanted to emulate, as well as those that I did not. During my internal medicine residency training, I met the physician who would become and has remained my role model. He represented much of what I hoped to attain and he served as the example after which I have tried to pattern my behavior. In his role as a general internist I thought he was a great diagnostician, had wonderful bedside manner, and taught clearly and effectively. As a program director he was fair, respected, well organized, thoughtful and caring. As a person he seemed to be a family man, had a great sense of humor, was well liked by all, and he was healthful (finding time for himself to exercise regularly). For all of the above reasons, he serves as my primary role model.

Having recently made the transition from medical trainee (fellow) to attending, I have thought about being perceived as a role model. When I was

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SGIM 500: 1998 Member-Get-A-Member Campaign

Janice Clements

The response to our membership campaign has been great and we thank you all for your recruitment efforts! We would like to reach our membership goal of a 10% increase in membership this year, however we are still in need of an additional 500 new members. So we thought of the perfect name for our campaign—the SGIM 500. Now, it's time to rev-up your membership engines and join in our race!

Why did you join SGIM? Was it at the invitation of other members? Did they encourage you to submit your work for presentation at an annual or regional meeting? Did they refer you to an article in the *JGIM* that assisted you in treating a patient or teaching your residents? We understand the value of member recruitment and the impact it has on membership development, we also know that SGIM has helped you in your career in general internal medicine, so we are counting on you to relay

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MANAGING ONE'S CARE

Nicole Lurie, MD, MSPH

This one will be short and sweet. I'm headed to our SGIM strategic planning retreat, acutely aware that this column was due in to the editor a week ago. It's not the first time I've missed a deadline, just another one, and it's another sign that things are a little more out of control than I'd like them to be.

In preparation for our retreat, the Council conducted a series of interviews with various "stakeholders" in SGIM, and I've just read through all the interviews. While I can promise a full report on this retreat in the next issue of the *Forum*, I am, for now, struck by a number of comments in these interviews, because they relate to my missing the deadline. The first is a series of comments about our members' struggle for balance—balance between career and personal life, and balance among people's various work responsibilities; the second is a series of comments about new managed care environments. I find myself resonating with all of them.

I also find myself thinking about the concept of managing my own "care," and about some particular innovations in managed care, namely "self care" and "demand management." Both of these relate to attempts to reduce utilization, by providing information by which enrollees can address simple, nonserious problems themselves, and by providing "filters" between patients and providers such as nurse lines, to reduce the need for certain kinds of visits. They relate directly to my own day-to-day struggles.

So, what about my own "self care"? How can I do better "demand management." Some things I've already put in place—no meetings in the early morning or after 5:30 PM, getting better at saying "no" to certain requests, having my kids "approve" of my travel or other big commitments before I make them (they are pretty good judges of what is important), and getting regular exercise. They help a lot, but I can't always stick to them—especially the meeting times. So now I'm working on other strategies: I've asked someone else to help with household-related errands that I really don't need to do. Similarly, at work, I've tried to identify a team to share some of the responsibilities—the hard parts for me have been letting go and feeling comfortable with someone else doing part of the work. I have also put some deliberate filters in place, with the result that I'm a little less accessible than I was when I did it all myself, but I'm getting better at it (and I feel better) with practice.

I've put an exercise bike in my office and ride while I read manuscripts, listen on conference calls, or feel particularly frustrated or on edge. And like blocking out research time, I've blocked out kid time and as a result have more time with them. Finally, I've been working on prioritizing my commitments, consciously making the choice to miss a deadline or two instead of staying up late or not making it home on time.

So this column was late, but neither the world, nor my career, has come to an end. I feel better, but I know there is still a next generation of "care management" to come. *SGIM*

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TWO FACES OF VA CHANGE

David K. Lee, MD

Two recent large national meetings developed somewhat different conclusions about important changes in the Veterans Health Administration (VHA). "Journey of Change: Exploring and Discovering VHA's Future" met in Baltimore, Maryland, from December 8–11, 1997. The session was intended to review past accomplishments and point toward future directions. Note was made that the new organizational structure, the Veterans Integrated Services Network (VISN), was continuing to mature and function. Performance indicators, which track a wide variety of objective measures including counseling, immunization rates, and other management parameters, have displayed dramatic progress and often exceed private sector benchmarks. Resource related changes, including dramatic drops in inpatient bed utilization and a continued transition to outpatient care, also show sustained improvement. As VHA looks to its future, Dr. Kenneth Kizer, Undersecretary for Health, mentioned several issues. One of the most important as it relates to resources for the future is the possibility of Medicare subvention—giving VA the ability to bill Medicare for services provided to veterans.

There was a major affirmation about the importance of VA in training medical professionals…

Dr. Kizer used the opportunity to announce several new initiatives. One was an articulation of VHA's national values: trust, respect, commitment, compassion, and excellence. A major new focus on patient safety included an awards program for system improvements that identify and remove safety hazards. VA Networks or VISNs can now compete for a Quality Achievement Recognition Award based on the criteria of the Malcolm Baldridge Healthcare Performance Awards. Finally, with a new thrust toward hiring only board-certified physicians already in place, a parallel effort to encourage participation in professional organizations that develop, test, and recognize managerial skills for Medical Center Directors, Associate Directors, Chiefs of Staff, and Headquarters staff was distributed. This could include membership in such organizations as the American College of Healthcare Executives and the American College of Physician Executives.

A series of competitively selected posters on Innovations in Clinical Care provided an array of new ideas and possibilities to meeting members. Individuals selected to present posters, usually direct care providers, also participated actively in the meeting, providing their insights and perspectives along with the rest of the participants, who were largely senior managers.

This meeting concluded with a series of highly interactive workgroups on the continuum of care, access, increased user numbers, patient satisfaction, non-appropriated sources of resources, decreasing cost while maintaining quality, managing for high performance, organizational learning, and clinical practice guidelines—all issues significant to the veterans health care system's future. In general, the mood of this meeting seemed generally positive as significant recent change was reviewed and future directions were outlined.

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How Should the Generalist Respond to the New Drug Raloxifene?

Marilyn M. Schapira, MD, MPH

In the realm of providing primary health care to women, the recent approval of the drug raloxifene is big news. The availability of the drug provides another option for women considering postmenopausal hormone replacement therapy (HRT). However, the release and anticipated heavy marketing pose a challenge to physicians. The benefits of the drug as an alternative to estrogen should be communicated to patients, but so too must the limitations of our knowledge regarding its efficacy in preventing osteoporosis and cardiovascular disease.

Raloxifene is classified as a selective estrogen-receptor modulator (SERM). This class of drugs has the ability to mimic the effects of estrogen in some tissues but not others. Initial studies in animals demonstrate that raloxifene has a unique profile among antiestrogens in that it acts as an estrogen antagonist on uterine and mammary tissue but as an estrogen agonist with respect to bone and circulating lipid profiles. Published clinical trials of the use of raloxifene among postmenopausal women have been limited to date. A recent randomized clinical evaluated the effect of raloxifene compared to placebo on 601 healthy postmenopausal women, comparing bone mineral density, serum lipid concentrations, and endometrial thickness over 24 months.[1] The study reports that raloxifene caused a slight increase in bone mineral density of the lumbar spine, total hip, femoral neck, and total body (1.2–1.6%), a decrease in total cholesterol (6.4%) and LDL (10%), without changing triglycerides or HDL levels, and no effect on hot flashes. There was no difference in endometrial thickness between groups. Other large clinical trials of the use of raloxifene are ongoing. To date, there

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Maintaining Public Assistance Data in the Managed Care Era

C. Daniel Mullins, PhD
Francis B. Palumbo, PhD, JD

Since the inception of Medicare and Medicaid, large databases have been maintained at the state or federal level that facilitate tracking of medical care utilization and patient outcomes for their insured populations: the poor and elderly. As Medicare and Medicaid patients increasingly move into managed care organizations (MCOs), there is a need to ensure that data on health care use and outcomes continue to be collected and made available for evaluation. However, at present, data collected by MCOs are not consistently reported across plans.

The trend to move Medicare and Medicaid patients into managed care, either voluntarily or through Medicaid 1115 waivers, continues to increase. Eventually a significant proportion of government-sponsored patients will receive their health care through MCOs. This shift has implications that extend far beyond finances alone. Information on medical care utilization that was consistently available through Medicare or state Medicaid programs, may now reside in the various MCOs and may *not* be available on a sufficiently wide or consistent basis to appropriately evaluate these programs. How can health trends and outcomes at the population level be evaluated in the absence of specific clinical and other outcomes data?

Medicaid/Medicare Shift to Managed Care

Under 1115 waiver provisions, an ever-increasing number of states are shifting Medicaid patients into health maintenance organizations (HMOs). As of fiscal year 1994, 130,000 Medicaid patients were enrolled in managed care nationwide. Currently, there are Medicaid Section 1115 demonstration projects under way in at least seven states: Florida, Hawaii, Kentucky, Minnesota, Oregon, Rhode Island, and Tennessee.[1] Eligibility, enrollment in, and financing of managed care programs varies somewhat from state to state. These are not the only states in which Medicaid patients are being directed to MCOs. In almost two-thirds of the states, at least some Medicaid patients receive their medical care through MCOs.[2]

A number of Medicare patients are also shifting into HMOs, even though 1115 waivers are not required. An estimated 2.5 million Medicare beneficiaries were in HMOs in 1995. This represents 6.6% of all Medicare enrollees, more than double the 3% enrollment in 1987.[3] Also, in at least nine states, between 30% and 39% of Medicare eligibles are enrolled in an HMO.

Medicare Data Sources

At the present time, the Health Care Financing Administration's (HCFA) Medicare transaction system, which captures Medicare payment information, is being revamped. Presumably, this system will capture managed care data in the future. At the moment, the Medicare transaction system can only identify recipients and dollars forwarded to health maintenance organizations; thus, HCFA only tracks the premium dollars that it sends to HMOs on behalf of Medicare recipients. HCFA requests encounter data from these organizations, but it is often incomplete and unreliable. While HCFA has three groups working on standardizing patient encounter data, it is necessary at present to go directly to particular HMOs to obtain information on patient encounters or transactions.

Other information available from HCFA includes the Medicare Current Beneficiary Survey (MCBS) which includes both insurance and drug information on Medicare beneficiaries. Again, information on patients in managed care is not well represented within this dataset.

Medicaid Data Sources

Section 1115 Medicaid waivers are designed to allow states to develop innovative solutions to a variety of health and welfare problems. Through 1115 demonstrations, state Medicaid agencies can implement changes in their programs related to coverage, eligibility requirements, payment methods, and benefit packages for a limited time to see if the changes will achieve certain objectives. Of the states that have gained approval from HCFA to implement 1115 statewide demonstrations, those that have implemented their 1115 programs are using various managed care models ranging from primary care case management plans to staff model HMOs.[1] According to HCFA, waiver states are required to provide "encounter data" to HCFA because the 1115 waivers must be evaluated. Our concern is that this does not guarantee that data will be readily available for evaluation of the quality of medical care delivered to patients in the managed care environment.

It will undoubtedly be necessary to maintain a working relationship with the Medicaid programs in the various states if researchers wish to obtain data from managed care organizations. For example, in Maryland, those Medicaid patients who are in managed care are part of the database, which is maintained in each of those MCOs. In order to obtain managed care data for research purposes, it would be necessary to initiate a formal request to the Medicaid program. Only then could the investigators negotiate with the MCOs directly.

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ANTIRETROVIRAL THERAPY
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In Kitahata's landmark study of this issue,[15] a relatively modest level of experience—six or more patients—appeared to be sufficient to improve a physician's outcomes with this disease. Thus, this appeared to be a level of experience that many interested generalists could obtain and maintain, without becoming dedicated "HIV specialists."

However, concurrent with the development of the new and more complex antiretroviral guidelines, the belief that generalists with a moderate amount of HIV experience can be competent HIV providers was called into question and now continues to be hotly debated. As the sole generalist on one of these guidelines panels,[4] I found that there seemed to be nearly unanimous agreement among the other panelists that primary care physicians are not knowledgeable enough to manage the new complicated antiretroviral regimens. Many members of this and the other panels wanted to state explicitly in their recommendations that all HIV patients should be managed by HIV specialists. The compromise statements that resulted from the Panels' deliberations and actually published within the guidelines were somewhat more reasonable, but do not fully convey the level of concern voiced regarding generalists' ability to care for HIV patients: "These recommendations are not intended to substitute for the judgment of a physician who is expert in the care of HIV-infected individuals. It is important to note that the Panel felt that where possible the treatment of HIV-infected patients should be directed by a physician with extensive experience in the care of these patients. When this is not possible, it is important to have access to such expertise through consultations."[3]

There is no doubt that the numerous general internists throughout the United States who have chosen to make HIV/AIDS the focus of their careers can competently care for patients with this disease; these physicians fit into most people's definition of the term "HIV specialist." The Infectious Disease Society of America (IDSA) has recently convened an HIV/AIDS specialty panel chaired by Paul Volberding, MD, and Constance Bensen, MD, to work toward the development of an HIV/AIDS specialty that would in theory be credentialled through IDSA but be available to certify the AIDS expertise of those with various formal training, including AIDS experts who are general internists. While this may be relevant to a select subset of generalist physicians, my opinion is that a broader spectrum of general internists who make a commitment to "keep up" with current management of HIV/AIDS, and who consistently serve as the primary provider for several HIV patients, can also continue to be excellent primary care providers for those living with HIV. At this time, however, this opinion does not yet have any evidence to back it up. Clearly, there is a need for well-designed health services research to shed more light on this issue. In the meantime, I would like to help ensure that the new guidelines for antiretroviral therapy for HIV/AIDS are accessible to general internists who are committed to "keeping up" by summarizing them below.

Summary of the New Guidelines for Antiretroviral Therapy

All of the new documents that were released in June 1997 regarding current recommendations for antiretroviral therapy for HIV/AIDS are nearly identical[17]; they differ only on a few details. The key recommendations that all general internists should be aware of are the current recommendations for when to start antiretroviral therapy, what to start with, when antiretroviral therapy should be changed, and what to change to. The DHHS recommendations regarding these issues are excerpted below.

When to Start Therapy

Indications for the initiation of antiretroviral therapy in chronically HIV-infected patients are as follows:

1. Symptomatic patients (those with AIDS, thrush, and unexplained fever): Antiretroviral therapy is recommended for all of these patients regardless of their CD4 count and HIV RNA (viral load).
2. Asymptomatic patients with CD4 count <500/mm^3 or HIV RNA by branched DNA analysis (bDNA) >10,000 copies/ml or HIV RNA by polymerase chain reaction (PCR) (Amplicor) >20,000 copies/ml: Treatment should be offered. Strength of this recommendation is based on prognosis for disease-free survival and willingness of the patient to accept therapy.
3. Asymptomatic patients with CD4 count >500/mm^3 and HIV RNA by bDNA <10,000 copies/ml or HIV RNA by PCR (Amplicor) <20,000 copies/ml: Some experts would delay therapy and observe; however, some experts would treat.

What to Start With

Recommended Antiretroviral Agents for Treatment of Established HIV infection:

Preferred: Strong evidence of clinical benefit and sustained suppression of plasma viral load. One choice each from Column A and Column B. Drugs are listed in random, not priority, order.

Column A	Column B
Indinavir	AZT + ddI
Nelfinavir	d4T + ddI
Ritonavir	AZT + ddC
Ritonavir + Saquinavir	AZT + 3TC
	d4T + 3TC

Alternative: Less likely to provide sustained virus suppression.
Nevirapine + 2NRTIs (Column B above)
Saquinavir + 2NRTIs (Column B above)

Not generally recommended: Clinical ben-

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efit demonstrated but initial virus suppression is not sustained in most patients.
2 NRTIs (Column B)

Not Recommended: Evidence against use, virologically undesirable, or overlapping toxicity:
All monotherapies, d4T + AZT, ddC + ddI, ddC + d4T, ddC + 3TC.

When to Change Therapy

The goal of therapy is a viral load of <500 copies/ml at 4–6 months after starting a new regimen. The probability of achieving this goal can be crudely predicted at 1–2 months, at which time there should be a decrease in viral load of at least one log (10 fold). The decision to change therapy is confounded by prior drug exposures, toxicities, and a lack of substitute regimens with acceptable tolerance, established efficacy, or probability of adherence. In some instances, due to limited options, it is preferred to continue a regimen that incompletely suppresses the virus.

What to Change to

Ideally, the patient should be changed to a regimen that includes two antiretroviral agents with which he/she has not been treated previously. The new regimen should conform to the standards outlined above. Be alert to patterns of cross-resistance between certain protease inhibitors, and between certain NRTIs.

Finally, it is important for all clinicians treating HIV/AIDS patients to be aware that only patients who fully understand and accept the level of responsibility and long-term commitment necessary to take these regimens consistently should be started on them. This is an essential approach to the initiation of these regimens, since all protease inhibitors may engender early HIV resistance after even a week of missed medication, irregular use, or incomplete doses.[18–20] Additionally, because of issues of cross-resistance, inappropriate use of one protease inhibitor may limit future therapeutic options. Thus, patients' strict adherence to their prescribed protease inhibitor (PI) containing regimen is critically important to maintain a durable clinical and virologic response. Such strict adherence includes avoidance of skipping doses, "drug holidays," and other interruptions of treatment.

For a complete copy of the guidelines I would encourage you to either obtain a copy of the DHHS Guidelines by calling the CDC AIDS Information Clearinghouse at (800) 458-5231, or obtain a copy of the *JAMA* article containing the IAS-USA Recommendations.[1] *SGIM*

Glossary

Nucleoside analogue reverse transcriptase inhibitors (NRTIs)
AZT (Zidovudine, Retrovir)
3TC (lamivudine, Epivir)
d4T (stavudine, Zerit)
ddC (zalcitabine, Hivid)
ddI (didanosine, Videx)
Non-nucleoside analogue reverse transcriptase inhibitors (NNRTIs)
nevirapine (Viramune)
delavirdine (Rescriptor)
efavirenz (Sustiva)
Protease inhibitors
saquinavir (Invirase, Fortovase)
ritonavir (Norvir)
indinavir (Crixivan)
nelfinavir (Viracept)

References

1. Carpenter CCJ, Fischl MA, Hammer SM, et al. Antiretroviral therapy for HIV infection in 1996: recommendations of an international panel. JAMA. 1996;276:146–54.
2. Carpenter CCJ, Fischl MA, Hammer SM, et al. Antiretroviral therapy for HIV infection in 1997: updated recommendations of the international AIDS society–USA panel. JAMA. 1997;277:1962–9.
3. Fauci AS, Bartlett JG and the Panel on Clinical Practices for Treatment of HIV Infection. Panel on Clinical Practices for Treatment of HIV Infection. Guidelines for the Use of Antiretroviral Agents in HIV-infected Adults and Adolescents. Department of Health and Human Services. Office of Public Health and Science. 1997. Federal Register Doc # 97-16228.
4. Carpenter CCJ and the NIH Panel to Define Principles of HIV Infection. Report of the NIH Panel to Define Principles of HIV Infection. Department of Health and Human Services. Office of Public Health and Science. 1997. Federal Register Doc # 97-16228.
5. Leland J. The End of AIDS? Newsweek. December 2, 1996:65–73.
6. Sontag D, Richardson L. Doctors Withhold H.I.V. Pill Regimen From Some, Failure to Follow Rigid Schedule Could Hurt Others, They Fear. The New York Times March 2, 1997:1,31.
7. Torres RA, Barr M. Impact of combination therapy for HIV infection on inpatient census. N Engl J Med. 1997;336:1531–2.
8. Altman LK. AIDS deaths drop 19% in U.S., continuing a heartening trend. New York Times, July 15, 1997: A1.
9. Kong D. Massachusetts shows a sharp drop in AIDS deaths. Boston Globe. July 23, 1997:A1,A13.
10. Centers for Disease Control and Prevention. Update: Trends in AIDS Incidence—United States, 1996. MMWR. 1997:46:861–7.
11. Gulick RM, Mellors JW, Havlir D, et al. Treatment with indinavir, zidovudine, and lamivudine in adults with HIV infection and prior antiretroviral therapy. N Engl J Med. 1997;337:734–9.
12. Hammer SM, Squires KE, Hughes MD, et al. A controlled trial of two nucleoside analogues plus indinavir in persons with HIV infection and CD4 cell counts of 200/mm^3 or less. N Engl J Med. 1997;337:725–33.
13. Northfelt DW, Hayward RA, Shapiro MF. The acquired immunodeficiency syndrome is a primary care disease. Ann Intern Med. 1988;109:773–5.
14. Volberding PA. The clinical spectrum of the acquired immunodeficiency syndrome: implications for comprehensive patient care. Ann Intern Med. 1985;103:729–33.

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ROLE MODELS

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attending on the wards last month and interacting with the medical students and house officers, I had visions of being back at summer camp, but instead of working with CITs I was working with DITs (doctors in training). Here, once again (just like 10 summers earlier), being a role model, especially at the bedside, was probably a very important aspect of my teaching.

The research that has been done on role modeling in medicine is scant but does indicate several points. Positive and negative role models encountered during medical training influence the career choice of medical trainees.[6–8] In one study, medical students reported that the relationship with their role models had resulted in personal growth and development.[9] Medical students, house officers, and attendings are all in agreement that clinical skills, personality, and teaching ability are the most important factors in identifying and selecting role models in medicine.[9–11] A case-control study comparing physicians who are perceived as excellent role models with those who are not perceived as such has found that many of the factors associated with being an excellent role model relate to acquirable skills and modifiable behaviors (e.g., formal training in teaching, stressing the importance of the doctor-patient relationship when teaching).[11] Detailed results of this study have been submitted for publication at the time of this article's printing.

The importance of role modeling in medical education is underscored by the fact that trainees need not only to acquire knowledge and skills, but also values, attitudes, behaviors, and a personal code of ethics.[12] For the core competencies encompassed by professionalism and humanism, role modeling (or teaching by example) appears to be the process most likely to facilitate the trainee's learning and growth.[13] *SGIM*

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References

1. Bandura A. Social Learning Theory. Englewood Cliffs, NJ: Prentice Hall, 1977.
2. Mazur J. Learning and Behavior, Third Edition. Englewood Cliffs, NJ: Prentice Hall, 1994.
3. Linzer M, Slavin T, Mutha S, Takayama JI, Branda L, VanEyck S, McMurray JE, Rabinowitz HK. Admission, recruitment, and retention: finding and keeping the generalist-oriented student. J Gen Intern Med. 1994;9 (Suppl 1):S14–23.
4. Ficklin F, Browne V, Powell R, Carter J. Faculty and house staff members as role models. J Med Educ. 1988;63:392–6.
5. Shuval J, Adler I. The role of models in professional socialization. Soc Sci Med. 1980;14A:5–14.
6. Mutha S, Takayama J, O'Neil E. Insights into medical students' career choices based on third and fourth-year students' focus-group discussions. Acad Med. 1997;72:635–40.
7. Lieu T, Schroder S, Altman D. Specialty choices at one medical school: recent trends and analysis of predictive factors. Acad Med. 1989;64:622–9.
8. Babbott D, Levey G, Weaver S, Killian C. Medical student attitudes about internal medicine: a study of U.S. medical school seniors in 1988. Ann Intern Med. 1991;114:16–22.
9. Wright S, Wong A, Newill C. The impact of role models on medical students. J Gen Intern Med. 1997; 12;53-6.
10. Wright S. Examining what residents look for in their role models. Acad Med. 1996;71:290–2.
11. Wright S, Kern D, Kolodner K, Howard D, Brancati F. Attributes of excellent role models: a case-control study. J Gen Intern Med. 1997;12 (suppl):100 (abstract).
12. Guide to Evaluation of Residents in Internal Medicine, Second Edition. American Board of Internal Medicine. 1992;4–5.
13. Barondess J. The GPEP report: III. Faculty involvement. Ann Intern Med. 1985;103:454–5.

MEMBER-GET-A-MEMBER

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Janice Clements is the Membership Coordinator of SGIM.

ANTIRETROVIRAL THERAPY

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15. Kitahata MM, Koepsell TD, Deyo RA, Maxwell CL, Dodge WT, Wagner EH. Physicians' experience with the Acquired Immunodeficiency Syndrome as a factor in patients' survival. New Engl J Med. 1996;334:701–6.
16. Volberding PA. Improving the outcomes of care for patients with HIV infection. N Engl J Med. 1996; 334:729–31.
17. Bartlett JG. Recommendations for antiretroviral therapy: a comparison of IAS-USA and DHHS guidelines. Hopkins HIV Report. 1997; 9(5):1,3,9,10.
18. Condra JH, Schleif WA, Blahy OM, et al. In vivo emergence of HIV-1 variants resistant to multiple protease inhibitors. Nature. 1995;374:569–71.
19. Jacobsen H, Hanggi M, Ott M, et al. In vivo resistance to a human immunodeficiency virus type 1 proteinase inhibitor: mutations, kinetics, and frequencies. J Infect Dis. 1996;173: 1379–87.
20. Vanhove G, Shapiro J, Winters M, Merigan T, Blaschke T. Patient compliance and drug failure in protease inhibitor monotherapy. JAMA. 1997; 276:1955–6.

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are no published data on the clinical outcomes of fracture rates, cardiovascular events, or breast or uterine cancer.

Raloxifene was approved by the FDA on December 10th, 1997. It is manufactured by Eli Lilly and Company and will be marketed under the trade name Evista™. The indication for the drug is the prevention of osteoporosis and the recommended dose is 60 mg/day. The public interest in the drug is immense. The drug is being marketed as a designer estrogen that provides the cardioprotective effect (through improved lipid profile) and bone protection effect of estrogen without the risk of inducing breast or uterine cancer. A recent search for raloxifene news on the World Wide Web found a Lilly Company News report stating that the company is developing a new business unit for the primary purpose of marketing the drug raloxifene. Similarly, a call to Lilly's physician customer service finds the first option on the menu to be for information concerning raloxifene. The drug is anticipated to be available in January 1998.

How can we, as primary care physicians, put this drug in perspective for our patients considering HRT options? As an alternative to estrogen for the prevention of osteoporosis, we can tell patients that, although raloxifene increases bone mineral density compared to placebo, its effect appears to be less than that of estrogen. We should also convey to patients the importance of not yet having clinical data on the effect of raloxifene on the incidence of fractures. What should we tell our patients regarding the cardioprotective effects of raloxifene? We can state that raloxifene appears to have a benefit with regard to lipid profiles, but again, not as great a benefit as estrogen. Although raloxifene has a modest effect on lowering total cholesterol and LDL, unlike estrogen, it does not raise HDL. Further, it is not known whether raloxifene has other cardioprotective benefits demonstrated by estrogen, such as a vasodilatory effect and an antioxidant effect on lipoproteins. Finally, there are no data available on the effect of raloxifene on clinical cardiac endpoints. When considering raloxifene as an alternative to estrogen, it is also important to emphasize to patients that raloxifene is not useful in treating the symptoms of menopause such as hot flashes.

…there are no data available on the effect of raloxifene on clinical cardiac endpoints.

However, many patients may be satisfied with obtaining a lesser degree of bone and cardiac benefits if they can ensure that the hormone replacement therapy they use will not put them at increased risk for breast or uterine cancer. What should we tell our patients about raloxifene and cancer? We can convey that early clinical studies find that raloxifene does not appear to have a stimulatory effect on the uterus.[1] With regard to breast cancer, at this point we only have information from animal studies. Animal studies suggest that raloxifene may inhibit, rather than stimulate, proliferation of mammary tissues. Tamoxifen, another drug in the class of SERMs, has been found to be an effective adjuvant therapy for treatment of breast cancer and is now being tested in a clinical trial of primary prevention of breast cancer. However, tamoxifen is a different class of SERMs than raloxifene, and each class appears to have a unique profile of agonist and antagonist estrogen effects.[2] Therefore, we should alert our patients that the clinical effect of raloxifene on breast cancer in humans has yet to be elucidated. Similarly, although some studies suggest an increased risk of breast cancer from long-term estrogen use,[3] there remains uncertainty with respect to the relative risk of breast cancer associated with estrogen HRT.

…there remains uncertainty with respect to the relative risk of breast cancer associated with estrogen HRT.

The development of the SERM class of drugs is a promising step in the field of women's health. The approval of the drug raloxifene increases our patients' options with regard to postmenopausal HRT. The challenge to us, as general internists, is to put the benefits and risks of the drug in perspective for our patients and to caution them at this time regarding the limited clinical data available on new drugs such as raloxifene. *SGIM*

References

1. Delmas PD, Bjarnason NH, Mitlak BH, et al. Effect of raloxifene on bone mineral density, serum cholesterol concentrations, and uterine endometrium in postmenopausal women. N Engl J Med. 1997;337:1641–7.
2. Baker VL, Jaffe RB. Clinical uses of antiestrogens. Obstet Gynecol Surv. 1996;51:45–9.
3. Colditz GA, Hankinson SE, Hunter DJ, et al. The use of estrogens and progestins and the risk of breast cancer in postmenopausal women. N Engl J Med. 1995;332:1589–93.

MAINTAINING DATA
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The State of Maryland might serve as a reasonable case example. A new Maryland law now provides for 1115 waivers. However, administering this law and providing for useful information will likely be problematic. The law stipulates that each managed care organization shall submit to the Department of Health and Mental Hygiene (the Department) service-specific data by service type in a format to be established by the Department, and utilization and outcome reports, such as HEDIS, as directed by the Department. In addition, the Department, in association with the University of Maryland Baltimore County, prepared a proposal to implement this law. Among other things, it provides that MCOs must submit encounter data monthly for 100% of encounters in UB-92 or HCFA-1500 format, with certain financial data not required. Also, MCOs must use automated systems to record, communicate, and report encounter data. The proposal does not specify exactly how this is to be accomplished, nor does it detail the specific data that must be submitted. It does specify that MCOs must report pharmacy and vision services utilization data; however, it does not include which data are to be reported.

...at present, data collected by MCOs are not consistently reported across plans.

Data Reporting and Health Outcomes

The above information and the Maryland case serve to point out the degree to which patient, encounter, and financial data are fragmented as both Medicare and Medicaid patients are moved into managed care. On the Medicare side of the equation, HCFA appears to be quite sensitive to this issue and is taking steps to ensure the integrity of a usable data system. On the Medicaid side, the states are requiring encounter data as part of the 1115 waiver programs, but it may be quite some time before these data are available in any usable and reliable format. It appears that data on Medicaid patients who opt into managed care (outside the 1115 waiver system) may be most difficult to obtain because these data reside in the MCOs and are not part of a statewide encounter system or demonstration project.

Providing quality care and managing costs needs to focus on health outcomes, not just structure and process measures. Accomplishing this goal under the paradigm shift that is placing Medicaid and Medicare patients in managed care requires current and complete data sources on interventions and outcomes. The technological infrastructure required to accomplish this goal presents a challenge to Medicare and the state Medicaid programs at a time when health care dollars are scarce. *SGIM*

Dr. Mullins is a Senior Policy Fellow at the Center on Drugs and Public Policy (CDPP) at the University of Maryland School of Pharmacy, and heads the Pharmacoeconomics Unit at the University of Maryland Medical System. Dr. Palumbo is the Associate Director of the CDPP.

References

1. Holahan J, Coughlin T, Ku L, Lipson DJ, Rajan S. Insuring the poor through section 1115 Medicaid waivers. Health Aff. 1995;14:199–216.
2. National Pharmaceutical Council. Pharmaceutical benefits under state medical assistance programs. September 1995.
3. Wilensky G. Incremental health system reform: where Medicare fits in. Health Aff. 1995;14:173–81.

VA CHANGE
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Another meeting, the summit of the National Association of VA Physicians and Dentists (NAVAPD), was held in Washington, DC, on November 4, 1997. News reports from U.S. Medicine characterized it as somewhat more negative in tone. Concerns raised included questions about the commitment to the academic mission of VHA. There was a major affirmation about the importance of VA in training medical professionals, and a sense that the importance of this contribution was not widely recognized. Research funding was acknowledged to be very competitive and sentiments were expressed that time available for physicians to develop and conduct research proposals was being impacted by other expectations of system performance. Many VA physicians objected to the use of "business language" in much of the reorganization and change, and a sense that there had been a diminution in respect for physician skills and professional background. Major concerns were expressed about issues surrounding the national formulary and prescribing issues. VA physicians also noted discomfort with the dilemmas being faced by many in managed care—conflicted loyalties between serving their patients and organizationally-driven mandates to contain costs. The overwhelming number of clinical practice guidelines was another topic for discussion with more objection to the sheer number than the guidelines concept. It seems apparent that there was a wide-ranging dialogue and that this is intended to be a continuing event.

In counterpoint to the Baltimore meeting, it appears that this group raised many concerns about the impact of the pace of recent change at the clinical front, with promises of ongoing discussions about these matters. As future VHA plans unfold, addressing concerns of staff physicians will likely bring resolution to this apparent divergence of views. *SGIM*

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ACADEMIC ADULT INPATIENT PHYSICIANS. The Department of Medicine, Henry Ford Hospital, is recruiting academic internists with principal interest in the inpatient care for adult patients. Programmatic responsibilities will include direct and consultative patient care, medical education, quality improvement, and unit medical administration on the medical services of Henry Ford Hospital. The ideal candidate will have 3 to 5 years of experience in the practice and teaching of internal medicine. Expertise in the evaluation and management of patients requiring hospitalization, communication skills, and collaborative abilities to improve hospital-based care are required. Salary and benefits are competitive. Please address inquiries with CV to: Dr. John Popovich, Jr., Vice-Chairman of Medicine, Henry Ford Hospital, 2799 W. Grand Blvd., Detroit, MI 48025. Telephone (313) 876-2428; Fax (313) 876-9102; E-mail jpopovi1@smtpgw.is.hfh.edu

CHIEF, DIVISION OF GENERAL INTERNAL MEDICINE. Seeking general internist with at least 8 years experience in academic environment to lead Division of 50 BC internists, including 6 full-time faculty. Most members of Division actively participate in our 55 resident Transitional/Categorical Medicine Residency. Ninety percent of graduates go into General Internal Medicine. Program has outstanding record with 90% plus pass rate on ABIM. Lehigh Valley Hospital is clinical campus of Penn State University School of Medicine where successful candidate will have faculty appointment. Hospital has strong commitment to undergraduate and graduate medical education with full third and fourth year medical student programs and 10 free-standing fully-accredited residency and fellowship programs. Interested candidates send CV in confidence to John Fitzgibbons, MD, Chair, Department of Medicine, 1243 S. Cedar Crest Blvd., Suite 3337-A, Allentown, PA 18103. Telephone (800) 548-7247 ext. 3090; Fax (610) 402-3089.

CORRECTION: In the January *Forum* (21:3), page 5, the Award recipients were incorrectly identified. From left to right they are Dean Keller, MD (University of Wisconsin) receiving the Clinician Education Award from past president Rodney Hayward, MD, and Karen Margolis, MD, MPH, presenting David Meltzer, MD, PhD (University of Chicago) with the Junior Faculty Award.

CLINICIAN INVESTIGATORS. The Division of General Internal Medicine at the University of Pittsburgh is recruiting outstanding clinician investigators for tenure stream positions at the Assistant or Associate Professor level to further expand health services and general internal medicine research activities at the University and the VA Pittsburgh Healthcare System. This is an opportunity to join a large, vibrant division of general internal medicine and University-wide Center for Research on Health Care with over $25 million in research funding. Interested applicants should submit a CV to: Wishwa N. Kapoor, MD, MPH, Chief, Division of General Internal Medicine, University of Pittsburgh, Montefiore University Hospital, W933, 200 Lothrop Street, Pittsburgh, PA 15213. EOE

CLINICIAN OR NONCLINICIAN EPIDEMIOLOGIST(S). Full-time faculty positions are available in the Center for Clinical Epidemiology and Biostatistics for clinician and nonclinician faculty who seek careers as independent investigators. We are particularly, although not exclusively, seeking faculty with research interests in genetic epidemiology, injury epidemiology, and nutrition research. The seniority of the position is unspecified. Responsibilities include participation in the Center's training programs, teaching, and patient care activities in the faculty member's clinical specialty (if relevant), and development of an independent research program. Send cover letter and copy of CV to: Brian L. Strom, MD, MPH, Center for Clinical Epidemiology and Biostatistics, 824 Blockley Hall, University of Pennsylvania School of Medicine, Philadelphia, PA 19104-6021.

CHIEF, DIVISION OF GENERAL MEDICINE. The University of Rochester School of Medicine and Unity Health System seek an academic General Internist at the Associate or Full Professor level to lead the General Medicine Unit. The Unity Health System is a teaching affiliate comprised of two hospitals with both urban and suburban locations, three skilled nursing facilities, and a faculty ambulatory care teaching site. With a long-standing commitment to care of the underserved, opportunities abound for health services research. The General Medicine Unit currently consists of eleven (11) academic General Internists including the Chief of Medicine and the Primary Care Residency Program Director. The General Medicine Unit operates an active consult service, a hospitalist program, and a busy ambulatory clinic. The head of the General Medicine Unit would be able to teach medical students and primary care residents, expand currently funded community-based clinical programs, provide primary care in a faculty group practice, and interact with exceptional city-wide General Internal Medicine faculty. Clinical excellence and research skills are essential. Fellowship training in General Internal Medicine is desirable. Send letter of interest and CV to: Richard Magnussen, MD, Department of Medicine, St. Mary's Hospital, 89 Genesee Street, Rochester, NY 14611.

DIRECTOR, GIM RESIDENCY PROGRAM. GIM Division with long track record as a leader in medical education is recruiting a Director or Associate Director for its established yet innovative residency program in General Internal Medicine. Fellowship or Chief Residency, and experience in curriculum development, educational administration, educational research, and primary care/community-based medicine preferred. Send letter and CV to Drs. Randy Barker and David Kern, Co-Directors, Division of General Internal Medicine, Johns Hopkins Bayview Medical Center, 4940 Eastern Avenue, Baltimore, MD 21224-2780.

FELLOWSHIP IN GENERAL INTERNAL MEDICINE AND PEDIATRICS. The University of Kentucky offers a 2-year fellowship in general internal medicine or general pediatrics to board eligible physicians interested in pursuing careers in academic general internal medicine or pediatrics. Fellows receive training in research, administrative medicine, and clinical teaching, and would qualify for positions as clinician researchers or clinical educators upon completion. Fellows may select from the advanced degree programs on campus to supplement their formal training. Fellows will participate in their own research projects and are encouraged to present their findings at regional and national meetings. Fellows receive tuition, stipend support, and benefits. Positions are available beginning July 1998. Interested candidates should reply to: Mary Ramsbottom-Lucier, MDCM, MPH, Program Director, Division of General Internal Medicine and Geriatrics, University of Kentucky College of Medicine, K 507 Kentucky Clinic, Lexingtom, KY 40536-0284. Telephone (606) 257-5241. AA/EOE

POST-DOCTORAL RESEARCH FELLOWSHIPS. The primary Consortium Health Services Research Training Program at the University of Medicine and Dentistry of New Jersey–Robert Wood Johnson Medical School invites applicatons for post-doctoral fellowships supported by grants from AHCPR and HRSA. Positions offer opportunity for mentored research experience in areas that include medical effectiveness, decision analysis, quality of care, and the impact of health care system changes on outcomes. Benefits include stipend, insurance, full tuition for an optional MPH degree, and support for travel to professional meetings. Applicants must be U.S. citizens or permanent residents. For more information contact Jeffrey L. Carson, MD, Chief, Division of General Internal Medicine, UMDNJ–Robert Wood Johnson Medical School, 125 Paterson Street, New Brunswick, NJ 08903-0019. Telephone (732) 235-7122; E-mail carson@umdnj.edu. UMDNJ is a member of the University Health System of New Jersey. AA/EOE, m/f/d/v.

CLINICIAN INVESTIGATORS. The University of Chicago Section of General Internal Medicine

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Classified Ads

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is looking for outstanding general internists and geriatricians who have interests in health services research and related disciplines relevant to the study of the social dimensions of health and health care delivery. Applicants should be board-certified in internal medicine, and should have completed a research fellowship in general internal medicine or geriatrics, or its equivalent. Send a letter of interest, a CV, and the names of three references to: Wendy Levinson, MD, Chief, Section of General Internal Medicine, University of Chicago, 5841 S. Maryland Ave.-MC6098, Chicago, IL 60637. AA/EOE. Qualified women and minorities are strongly encouraged to apply.

HOSPITAL-BASED ACADEMICALLY-ORIENTED GENERAL INTERNIST. Lehigh Valley Hospital, a 650-bed regional teaching hospital in Allentown, Pennsylvania, is seeking BC clinician-educator to join five-person academic general internal medicine group. Candidates must have clinical experience as well as a keen interest in the education of medical students and residents. LVH is a principal affiliate of the Pennsylvania State University/Hershey Medical Center where physician will be eligible for faculty appointment. Ninety percent of the categorical medicine residents pursue careers in general internal medicine. Graduates of the IM residency program have a 96% pass rate on ABIM. One hour north of Philadelphia and two hours west of New York City, Allentown is an ideal place to live and practice medicine. Please forward CV in confidence to John Fitzgibbons, MD, Chair of Medicine, 1243 S. Cedar Crest Blvd., Suite 3331-C, Allentown, PA 18103. Telephone (800) 548-7247 ext. 3090; Fax (610) 402-3089.

ACADEMIC GENERAL INTERNIST. The Washington VA Medical Center is recruiting an academic general internist for its University-affiliated Primary Care programs. Applicants should be board-certified in Internal Medicine and have significant teaching experience. Research expertise is highly desirable and research time and support are available. Faculty appointment is in the Division of General Internal Medicine at Georgetown University. Send CV to: Jerome Herbers, MD, Assistant Chief, Medical Service, Washington VA Medical Center, 50 Irving St. NW, Washington, DC 20422. Fax (202) 745-8184.

HEALTH SERVICES RESEARCH/PREVENTIVE MEDICINE. A national search is being conducted to fill the full-time tenured position of Section Chief, Health Services Research, Department of Preventive Medicine and Deputy Director, Institute for Health Services Research and Policy Studies at Northwestern University (beginning in September 1998). This is a single faculty position with integrated responsibilities and functions in the Department and the Institute. The incumbent works with the Chair of the Department and the Director of the Institute to enhance and expand collaborative interdisciplinary health services research. Through the Institute, the focus will be on enhancing opportunities for health services research throughout the Chicago and Evanston campuses of the University.
Requirements for the position: Doctoral degree in discipline relevant to health services research. At least 5 years senior experience as principal investigator on major health services research projects. Academic record and scholarly accomplishments sufficient to warrant appointment as Professor with tenure. Demonstrated ability and willingness to work in a collaborative way to establish a broad interdisciplinary program of health services research. Commitment to mentoring and developing junior faculty, graduate students, post-doctoral fellows, and other researchers. Demonstrated ability to conceive, develop, obtain funding for, and carry out health services research projects. We particularly encourage applications from women and minorities. Please send nominations or application materials (CV, examples of written work, and three letters of recommendation) by March 31, 1998, to: Marilyn Foster Kirk, Coordinator, Search Committee, 629 Noyes St., Evanston, IL 60208-4170. For more information, please contact either Philip Greenland, MD, Dingman Professor and Chair, Dept. of Preventive Medicine, at (312) 908-1723, or Peter Budetti, MD, JD, Professor and Director, Institute for Health Services Research and Policy Studies, at (847) 467-5516. Northwestern is AA/EOE. Hiring is contingent upon eligibility to work in the United States.

PATIENT CARE AND OUTCOMES RESEARCH PROGRAM. A new award has been announced by the AHA National Research Program. The AHA-Pharmaceutical Roundtable Patient Care and Outcomes Research Program is intended to stimulate innovative and methodologically rigorous research that will document outcomes from strategies designed to improve the prevention or treatment of cardiovascular disease or stroke. The range of topics that will be considered is purposefully broad. $5.6 million for up to 12 grants in 1999, maximum amount per grant will be $500,000 for up to 3 years of funding. Letter of intent deadline: May 15, 1998; Application receipt deadline: July 15, 1998; Award activation: January 1, 1999. RFA's and applications may be requested via phone (214) 706-1458; fax (214) 706-1341; or E-mail: ncrp@amhrt.org. Information is also available via internet: http://www.americanheart.org/.

ASSISTANT/ASSOCIATE PROFESSOR. Clinical services and tenure-track positions available for full-time faculty in an active and expanding Division of General Internal Medicine at the University of Louisville beginning immediately. Research experience in the fields of clinical epidemiology, health services research, or occupational/environmental medicine and fellowship-level training or substantial experience are desired. Research positions eligible for affiliation with the University's Center for Health Services and Policy Research. Must be BC or BE in Internal Medicine. Clinical and research positions involve opportunities for participation in teaching or direct care clinics, inpatient service, and consultation service. For further information, please contact Dr. Paul McKinney, Professor and Chief, Division of General Internal Medicine, University of Louisville, Louisville, KY 40292. Telephone (502) 852-7945; Fax (502) 852-8980; E-mail wpmcki01@med.louisville.edu. EEO/AA