Melatonin

Since late 1993, melatonin, a neurohormone released by the pineal gland each night to help us sleep, has been available without a prescription in many health food stores and pharmacies. Various companies manufacture and distribute it in the form of pills and lozenges. Numerous articles have appeared in lay magazines about its uses for jet lag and insomnia, including the November 6, 1995, issue of *Newsweek*. Countless Americans are using melatonin. Yet, I have not come across articles about melatonin in family practice medical journals.

Over the last year I have started using melatonin in my practice for those patients who wish to occasionally use a nonprescription sleeping pill. I have also conducted numerous surveys of melatonin use. Of the 200 people I have surveyed who have tried melatonin, 85% found it to be effective, and 15% found it to be too weak or did not feel any effect. A finding that surprised me was that over half of the melatonin users noted enhanced dreams.

I expect that the popularity of melatonin will increase over the coming months. I believe it is important that physicians be aware that this supplement exists. Many patients will soon report to their physician that they are using melatonin for insomnia and jet lag.

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Editor's Note: I found this letter interesting and did a quick MEDLINE literature search of the last 5 years. Melatonin levels vary, being higher at night, and have been implicated in sleep disorders. There have been a number of interesting theories of the relationship of melatonin to length of life and several disorders, including multiple sclerosis, depression, and anorexia. There is a little bit about sleep, some quite recent. In one randomized, double-blind, crossover study[1] of 12 elderly patients with insomnia, melatonin was associated with greater sleep efficiency but no change in total sleep time or sleep latency. In another study,[2] sleep latency was reduced in six healthy male volunteers. In a third,[3] 12 young adults given 3 or 6 mg of melatonin had significantly shortened sleep latency and increased total sleep time compared with placebo. I would say these data are only suggestive of improvements in sleep with melatonin, not giving us much data; it is hoped there will be more soon.

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1. Garfinkel D, Laudon M, Nof D, Zisapel N. Improvement in sleep quality in elderly people by controlled release melatonin. *Lancet*. 1995;346:541-544.
2. Zhdanova IV, Wurtman RJ, Lynch JF, et al. Sleep-inducing effects of low doses of melatonin ingested in the evening. *Clin Pharmacol Ther*. 1995;57:552-558.
3. Nave R, Peled R, Lavie P. Melatonin improves evening napping. *Eur J Pharmacol*. 1995;275:213-216.

Health Professional Shortage Areas, Health Status, and Reform

The Editorial, "Health Professional Shortage Areas, Health Status, and Reform," by Patrick Dowling, MD, of Los Angeles[1] reviews some concerns and proposes solutions to the difficulty of recruiting and maintaining physicians in health professional shortage areas (HPSAs). However, I believe some other considerations are in order, based on my 15 years of experience as an Iowa rural family physician.

I disagree with Dr Dowling's point that "the persistent maldistribution is testimony to the fact that the traditional market forces of supply and demand have not worked under our fee-for-service health care delivery system."[1] The rural areas are significantly affected by federal programs that restrict and reformulate the market forces. Specifically, the Medicare program pays higher reimbursement fees to providers in urban and suburban areas than to providers in rural areas. While patients living in rural areas pay the same Medicare tax rate as urban patients, their physicians often receive 30% less pay for the same care provided in a nonmetropolitan statistical area than in an urban area (Governor's Task Force on Iowa Rural Health, 1989). Essentially, national rural health financial resources have been displaced to the metropolitan areas, away from the areas of need. This is a clear financial disincentive and penalizes physicians for practicing medicine in HPSAs.

Not only are physicians reimbursed at a lower level in an HPSA, but rural hospital diagnosis-related group rates are also lower. The decreased utilization of hospital beds, substantial federal regulation of hospitals, and decreased Medicare payments have led to the closure of many rural hospitals. Without the community health care focus and emergency services of a hospital, recruitment and retention of physicians in these shortage areas becomes more difficult. Therefore, the "persistent maldistribution" is more of a testimony to regulation and fiscal consideration than to "market forces of supply and demand."[1] I propose that a national standardized Medicare reimbursement fee system of equivalency (at the very least) or of higher reimbursement for practicing in shortage areas would go a long way in changing the maldistribution of physicians (and be consistent with supply and demand).

Table 1. Guidelines for an Alternative Emergency Service Facility*

Location in a rural area (defined as not being a metropolitan statistical area)
Must be associated with a licensed physician or other state-sanctioned health care facility and must contain appropriate life-support equipment
Must have adequate laboratory and radiology diagnostic support systems available 24 h daily
Must maintain licensed support staff with 24-h availability
Must provide a quality assurance program
All patients must be seen by a physician or physician assistant
Must have a linkage or referral arrangement with an existing hospital facility
Must be accessible 24 h daily for emergency services

*Adapted from Good.[2]

Table 2. Benefits of an Alternative Emergency Facility

Improved access to emergency services
Improved quality
Decreased health care costs
Improved physician recruitment and retention
Improved facility utilization

For rural areas where the rural hospital has failed or is nonexistent, the formation of an Alternative Emergency Facility (**Table 1**[2] and **Table 2**) would allow rural areas to financially support needed emergency and outpatient services.[3] This facility would serve as a community health care resource for disaster planning, emergency services, well-child and obstetrical care, outpatient procedures, and consultations from needed urban specialists. Again, however, Medicare funding and federal regulation allowance would be needed to ensure success. This type of facility would encourage rural HPSA recruitment and retention.

Dr Dowling makes an excellent observation that medical students from rural areas are underrepresented. Physicians from rural areas and those who train in institutions with rural health care emphasis are more likely to return to practice primary care specialties. These physicians often marry spouses from rural areas or with rural values. Medical students from rural areas should be considered a minority, thereby having funds available to assist them in subsidizing their very expensive medical education, so they would return to an area of health care need.[4]

Mandatory public health service has not demonstrated success in the retention of rural physicians. The system needs to foster success both socially and financially; be flexible to meet the many needs of our rural citizens and remain within their value system; and reduce the unnecessary and costly regulations that inhibit rural physicians from providing health care access to millions of rural inhabitants. In short, the current health care system, designed for and by urban strategists, requires major revisions if rural Americans are going to have equal access to health care services.

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1. Dowling P. Health professional shortage areas, health status, and reform. *Arch Fam Med*. 1995;4:677-679.
2. Good R. Rural emergency medical accessibility. *Hawkeye Osteopath J*. 1993; 11:5-9.
3. *Delivering Essential Health Care Services in Rural Areas*. Washington, DC: US Dept of Health and Human Services; May 1991. Publication 91-0017.
4. Simpson C, Simpson M. Complexity of the health-care crisis in rural America. *J Am Osteopath Assoc*. 1994;94:502-206.

In reply

Dr Good of Nova Southeastern University in Florida makes several good points in his letter concerning my recent Editorial. I agree with his assertion that federal programs have restructured and reformulated the market forces in rural areas. I am reminded of an anonymous quote about the market and medicine in this country: "When it comes to medicine, Adam Smith is all thumbs."

John Eisenberg, MD,[1] former Chairman of the Council of Graduate Medical Education, recently stated that market forces are encouraging more students to seek careers in primary care, but that the market itself was imperfect and as such probably would not solve the problem the nation has with rural and urban underserved areas.

Accordingly, I think Good makes several good suggestions, such as the creation of an Alternative Emergency Facility and the preferential recruitment of medical students from rural backgrounds. Clearly these are positive incentives that could reverse some of the effects of previous federal policies.

In the end, I think we need to develop policies that will recruit, train, and retain health professionals in both our rural and urban HPSAs. Only then will universal access become a possibility.

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1. Eisenberg J. Market forces and physician workforce reform: why they may not work. Presented at the Annual Meeting of the Association of American Medical Colleges; October 28, 1995; Washington, DC.

Physician Suicide

As a physician recovering from depression, I support the views of Kay Bauman, MD, in her discussion of the medical profession's view of mental illness and suicide in colleagues.[1] I am a physician who attempted suicide. I failed. Not because I intended to. Not because it "shouldn't" have worked. The response of my colleagues added further trauma and hurt to an already painful situation.

During my months in treatment, there was essentially no communication with me from my clinic and colleagues. Professionally, I was alone and isolated. I felt as if they thought I had died. When I was ready to return to work, I learned I would not be allowed to return to my job in the residency program where I had been a faculty member. I was not included in the discussions regarding my return, and no one talked with me before making this decision. Although the department supported me financially, they refused to allow me to return to my po-