

## The Time to Act Is Now

**T**HE ARTICLE, "INAPPROPRIATE PRESCRIBING for Elderly Americans in a Large Outpatient Population," by Curtis et al,<sup>1</sup> bespeaks a significant failure in the American health care system. Using a 1999 claims database of over three quarters of a million elderly subjects from a national pharmaceutical benefit manager, they report that 21% of this population filled a prescription for a drug deemed to be potentially inappropriate for this age group by an expert panel. Although the drugs included on such a list may vary depending on the views of the members of the panel, if even half that number of elderly subjects are taking potentially inappropriate medications, 1 in 10 of all older persons is receiving a drug that is potentially not appropriate. Similar studies date back at least 10 years with similar results, and little or nothing has been done to address the problem.<sup>2,3</sup>

*See also page 1621*

In fact, it is likely that these data underestimate by a wide margin the true problem of inappropriate prescribing for older persons. As Curtis and colleagues<sup>1</sup> were not able to capture data about dosage, large numbers of inappropriate prescriptions were almost certainly not discovered. In addition, this article includes data from outpatient facilities only. Other settings, specifically the skilled nursing home and the hospital, are known to have a high prevalence of inappropriate prescriptions.<sup>4</sup> In the hospital, for example, a drug not on their list, meperidine, is widely prescribed, although its use is associated with significant adverse effects, and any number of other narcotics are available that might be used in its place.<sup>5</sup> Nor do these authors address the issue of overuse of pharmaceuticals or drug-drug interactions in the elderly population known to take a disproportionate number of drugs.

If only 10% of the elderly population receive an inappropriate prescription each year, the number is shocking and warrants immediate and thoughtful action. Consider for a moment the public outcry if 10% of all schools had asbestos peeling from the ceiling. Would the Joint Commission on Accreditation of Hospitals and Healthcare Organizations accredit a hospital if 10% of the surgical procedures took place at a time when there was bacterial contamination of the operating room?

At the outset, the article by Curtis et al<sup>1</sup> forces us to ask how inappropriate prescribing practices could be taking place on such a large scale for so long with so little response. Is it due to the ignorance of the physicians? Perhaps because most physicians in practice today had

little or no training in geriatric medicine they may simply not be aware of the advances in this rapidly growing field. It is only within the past 3 years that the John A. Hartford Foundation has provided grants to introduce some geriatric medicine content into the training programs of many surgical specialties such as gynecology, orthopedics, and urology, which have a disproportionate number of elderly people as patients (ie, Increasing Geriatrics Expertise in Surgical and Related Medical Subspecialties [sponsored by The American Geriatrics Society, New York, NY, funded by The John A Hartford Foundation]).

Is this pattern of prescribing the result of a rigidity of practice patterns within the medical profession? Educating physicians to reduce benzodiazepine use by elderly patients by means of confidential feedback and educational material had no effect.<sup>6</sup> It is well known that continuing medical education in the form of grand rounds and lectures is unlikely to alter physician behavior to any significant degree.<sup>7-9</sup>

Does the reimbursement system that pays disproportionately for procedures fail to support appropriately the field of geriatrics that might be able to favorably influence prescription writing for elderly patients? Approximately 1 year ago, Medicare announced it will pay for lung volume reduction surgery, which costs \$60 000 per case.<sup>10</sup> The cost of 1 operation is approximately equivalent to that of a year's training for a geriatric fellow. At the same time geriatrics has had difficulty attracting fellows. The reimbursement system that favors procedures so blatantly clearly discourages medical students and residents who have large educational debts from entering a field that may take years of practice to pay them down.

Is this just a part of a larger problem? Is there too great a willingness to prescribe drugs on the part of physicians and too great an expectation on the part of patients to receive them during an office visit? Does referring to patients as clients produce the impression in the minds of both physicians and clients, or rather patients, that the doctor-patient interaction is one in which an elderly person is there to purchase an item of care, easily identified as a prescription? Are there too many consultative physicians, each prescribing medicines, without the oversight of a primary care physician?<sup>11</sup>

If this is a part of a greater problem, what is the role of the pharmaceutical industry in encouraging the use of drugs? Of interest, the industry makes wide use of direct one-on-one contact with physicians to promote the sale of their drugs, one of the few forms of continuing

medical education that may have some impact.<sup>12,13</sup> Will direct-to-consumer advertising result in an increase in the number of inappropriate prescriptions?

Whatever the reason, or more likely the reasons, the time has come to decrease the likelihood of inappropriate prescribing. To this end, first, we must eliminate the word "should" when making statements about physician practices. Clearly, statements such as physicians "should" know this or that and physicians "should" not do this or that are all too ineffectual in producing the desired result. A system needs to be put in place to achieve our objective.

One way to begin is to include pharmacists in the process of prescription writing in a more meaningful way. Since they usually have information about patients' age, pharmacists could be required to question the use of certain drugs or dosages in the elderly. A physician might tire of receiving phone calls regarding prescriptions from patients, and patients might suspect that their physician was less than up to date if this happened repeatedly.

Perhaps not all physicians should be able to prescribe all drugs. It does not seem the least unreasonable for those of us who are not oncologists to be prohibited from prescribing most drugs used by this group of physicians. Certainly, in the hospital setting I have limitations on what I can do. I am prohibited from delivering anesthetic agents, and I am not allowed to go to the neonatology unit and order medicines for a premature infant. Another approach would be to restrict some drugs from use in older persons just as they are in infants. Some sleeping pills, for example, should simply never be used in the elderly.

Protocols are relatively easily developed for use in the outpatient setting. A study from Arkansas suggested that they might have some small impact,<sup>14</sup> although it is doubtful that simply providing clinical guidelines will be effective.<sup>15</sup> It is likely that there would have to be a system of rewards and punishments for any such idea to result in a decrease in the number of inappropriate prescriptions. For example, failure to follow the protocols without an adequate written explanation might be monitored by the state licensing board. When a sufficient number of inappropriate prescriptions had been written by a single physician, that physician would be asked to provide an explanation for this practice pattern. If this information were in the public domain, a physician who consistently wrote large numbers of inappropriate prescriptions might be held accountable by the state licensing board, notice an effect on his practice, and experience an increase in the cost of malpractice insurance.

In addition, we need to consider how to put into place positive incentives. As Medicare begins to pay for drugs, it could simply not pay for those on a list of inappropriate drugs. Alternatively, the patients of physicians who followed protocols might be eligible to receive a decrease in the copayment when filling that physician's prescriptions. In all likelihood this cost to Medicare would be more than made up for by the reduction of costs associated with iatrogenic disease produced by inappropriate prescriptions.

Perhaps the easiest and likely the best way of lowering the number of inappropriate prescriptions would

be to design a computer program available to all pharmacists that identified all inappropriate prescriptions. Such a program has been tried in Canada and has been found to be successful.<sup>16</sup> There is also a report of a successful program in the United Kingdom.<sup>17</sup>

Some years ago when I was a house officer, I had lunch with a fellow resident, albeit a surgeon, who was exhausted but elated. He went on at some length in his admiration of a senior neurosurgeon, having just been his assistant during a lengthy operative procedure. With just the slightest slip of his hand, he pointed out, this surgeon could have paralyzed the patient. I reached into my pocket and pulled out a bottle of pills a new patient just admitted to the hospital had given me. I retorted that with just a few of these my patient could have died.

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## REFERENCES

1. Curtis LH, Østbye T, Sendersky V, et al. Inappropriate prescribing for elderly Americans in a large outpatient population. *Arch Intern Med.* 2004;164:1621-1625.
2. Spore DL, Mor V, Larrat P, Hawes C, Hiris J. Inappropriate drug prescriptions for elderly residents of board and care facilities. *Am J Public Health.* 1997;87:404-409.
3. Stuck AE, Beers MH, Steiner A, Aranow HU, Rubenstein LZ, Beck JC. Inappropriate medication use in community-residing older persons. *Arch Intern Med.* 1994;154:2195-2200.
4. Beers MH, Ouslander JG, Fingold SF, et al. Inappropriate medication prescribing in skilled-nursing facilities. *Ann Intern Med.* 1992;117:684-689.
5. Knight EL, Avorn J. Quality indicators for appropriate medication use in vulnerable elders. *Ann Intern Med.* 2001;135:703-710.
6. Pimlott NJ, Hux JE, Wilson LM, Kahan M, Li C, Rosser WW. Educating physicians to reduce benzodiazepine use by elderly patients: a randomized controlled trial. *CMAJ.* 2003;168:835-839.
7. Gill PS, Makela M, Vermeulen KM, et al. Changing doctor prescribing behaviour. *Pharm World Sci.* 1999;21:158-167.
8. Lexchin J. Improving the appropriateness of physician prescribing. *Int J Health Serv.* 1998;28:253-267.
9. Davis DA, Thomson MA, Oxman AD, Haynes RB. Changing physician performance: a systematic review of the effect of continuing medical education strategies. *JAMA.* 1995;274:700-705.
10. Grady D. Medicare to pay for major lung operation. *New York Times.* August 21, 2003:A22.
11. Tamblyn RM, McLeod PJ, Abrahamowicz M, Laprise R. Do too many cooks spoil the broth? multiple physician involvement with management of elderly patients and potentially inappropriate drug combinations. *CMAJ.* 1996;154:1177-1184.
12. Van Eijk ME, Avorn J, Porsius AJ, de Boer A. Reducing prescribing of highly anticholinergic antidepressants for elderly people. *BMJ.* 2001;322:654-657.
13. Soumerai SB, Avorn J. Predictors of physician prescribing change in an educational experiment to improve medication use. *Med Care.* 1987;25:210-221.
14. Gorton TA, Cranford CO, Golden WE, Walls RC, Pawelak JE. Primary care physicians' response to dissemination of practice guidelines. *Arch Fam Med.* 1995;4:135-142.
15. Cranney M, Warren E, Barton S, Gardner K, Walley T. Why do GPs not implement evidence based guidelines? a descriptive study. *Fam Pract.* 2001;18:359-363.
16. Papaioannou A, Bedard M, Campbell G, et al. Development and use of a computer program to detect potentially inappropriate prescribing in older adults residing in Canadian long-term care facilities. *BMC Geriatr.* 2002;2:5.
17. Computer weeds out unsafe prescriptions. *BBC News.* March 17, 2000. Available at: <http://news.bbc.co.uk/1/hi/health/679581.stm>.