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MEDICATING THE ELDERLY

To the Editor:

Dr Miller's editorial¹ deserves five stars and is destined to become a classic in the family practice literature. His analysis of the *JAMA* article² and the editorial³ that berate drug prescribing to the elderly should be required reading for all medical writers, television commentators, and news reporters. Unfortunately, they appear to have ignored it thus far.

An ongoing dialogue exists regarding the proper use of medication among geriatric patients. A recent edition of a standard geriatric textbook⁴ gives very different views on the use of amitriptyline (Elavil). On page 290, amitriptyline and doxepin (Sinequan) are rated identically in both sedative ("+++") and anticholinergic properties ("++++"). On the following page, this geriatric authority notes that "... amitriptyline, may be more appropriate for the agitated patient with pronounced sleep disturbance. . . ." On page 336, a second author of the same textbook suggests, "... for the depressed elderly patient, a sedating tricyclic, such as doxepin or trazodone in low doses (10 to 50 mg), is often the best choice for combined hypnotic and antidepressant effects." However, on page 46, Dr Beers (of the same source referenced by Willcox et al²) lists amitriptyline as the "most anticholinergic of all tricyclics." He also labels it as a "high-risk medication," but on page 36 states that doxepin can be used safely.

The lumping of all drug categories (from "potentially ineffective" to "contraindicated") by Willcox et al² into one bad drug category ("inappropriate") is a dogmatic simplification and distortion. The expansion of this drug list from the initial focus of nursing home patients to all elderly patients is as reasonable as the application of neonatal pharmacotherapeutic standards to adolescents. The retroactive review of 1987 data by 1994 "standards" is unconscionable. Furthermore, the assumption that patterns of prescribing do not change is erroneous, as demonstrated by Miller.¹ The ultimate conclusion that elderly patients are being harmed by their personal physicians may promote the academic careers of these researchers, but it is a shamefully flawed and

vicious attack that ultimately undermines the confidence and trust of the elderly patient in his or her personal physician.

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References

1. Miller AE Jr. Mismedicating the elderly—says who? *J Fam Pract* 1995; 41:331-6.
2. Willcox SM, Himmelstein DU, Woolhandler S. Inappropriate drug prescribing for the community-dwelling elderly. *JAMA* 1994; 272:292-6.
3. Gurwitz GH. Suboptimal medication use in the elderly: the tip of the iceberg. *JAMA* 1994; 272:316-7.
4. Calkins E, Ford AB, Katz PR. Practice of geriatrics. 2nd ed. Philadelphia Pa: WB Saunders, 1992.

The preceding letter was referred to Dr Miller, who responds as follows:

Frankly, I was surprised that my recent editorial, "Mismedicating the Elderly—Says Who?"¹ made no visible stir in the popular press. Dr Schneider is not alone in noticing that it did not happen. On the other hand, quite a few physicians apparently read and sympathized with what I tried to say. I received dozens of letters, all strongly supportive. Many were angered and frustrated by the media's warped portrayal of the medical profession.

Through the years, I've watched my sons at play with "professional model" yo-yos, "professional" skateboards, and "professional" skis. At the same time, what used to be called "professionalism" among medical folks seems to have been replaced by goody two-shoes attitudes and tattletale muckraking.

I have no argument with the fact that feeble older folks do not handle drugs well, and agree that caution needs to be exercised. My quarrel is with self-promoting professors who would sacrifice our collective professional reputations while fanning the fires of public outrage against us. The case in point—"Inappropriate Drug Prescribing for the Community-Dwelling Elderly"²—is a gross misrepresentation, both in depth and severity.

As of this date, the usually outspoken

authors of the Harvard study have not chosen to do battle. I was rather looking forward to a healthy scrap. Writing in *JAMA*, coauthors Himmelstein and Woolhandler³ characterized the Harvard study as an airing of our profession's dirty laundry. Furthermore, they were "troubled by the defensive tone" of some responses that their study provoked. Since the authors are no longer in attack mode, perhaps now they'd care to come out and play. They could begin by explaining the untenable numbers upon which their study is based.

In the same *JAMA* letter, Himmelstein and Woolhandler conceded that "contraindicated drugs" may sometimes be appropriately used. They ask: "Why refuse a dying patient's request for propoxyphene?" Sorry, but my dying patients don't beg for Darvon. While such remarks may ring true in the rhetorical halls of healthcare policy, in flesh and blood sickrooms of the terminally ill they sound pitifully naive.

Finally, once again from the same *JAMA* letter, Himmelstein and Woolhandler state that "the consensus panel that authored the contraindicated drug list has confirmed its applicability to community-dwelling seniors."³ If the authors had examined more closely the reference they cite, they would notice that Stuck, Beers, Steiner, et al⁴ were applying their criteria to "subjects aged 75 years and older living in the community . . . mean age 80.5 years (range 75 to 95 years)." From this, they would justify the Harvard study's inclusion of all persons aged 65 and older? A quick check with the Bureau of the Census tells us that 56% of Medicare patients are under the age of 75. With this one minor but sweeping oversight, the database used in our authors' study has been expanded by 18,752,000 American senior citizens.

I agree totally with Dr Schneider's observation that adopting criteria intended for a population with a mean age of 80.5 years, then applying those criteria to all persons age 65 and over, "is as reasonable as the application of neonatal pharmacotherapeutic standards to adolescents." Well stated!

August E. Miller, Jr, MD
Blackfoot, Idaho

References

1. Miller AE Jr. Mismedicating the elderly—says who? *J Fam Pract* 1995; 41:331-6.
2. Willcox SM, Himmelstein DU, Woolhandler S. Inappropriate drug prescribing for the community-dwelling elderly. *JAMA* 1994; 272:292-6.
3. Himmelstein DU, Woolhandler S. Inappropriate drug prescribing. In reply [letter]. *JAMA* 1995; 273:457-8.
4. Stuck AE, Beers MH, Steiner A, Aronow HU, Rubenstein LZ, Beck JC. Inappropriate medication use in community-residing older persons. *Arch Intern Med* 1994; 154: 2195-2200.

SUBLINGUAL VITAMIN B₁₂

To the Editor:

I was pleased to find the article on vitamin B₁₂ metabolism and deficiency states in *The Journal of Family Practice* (Swain R. An update of vitamin B₁₂ metabolism and deficiency states. *J Fam Pract* 1995; 41:595-600). I have recently been trying to find information about the sublingual formulations I have seen in health food stores, but have been unsuccessful. It seems to me that if a person cannot absorb B₁₂ naturally, eg, has a history of a Bilioth procedure, a "swallowed" form would not be much better; however, a sublingual formulation ought to work fine. I was wondering if Dr Swain has any information or opinion on the treatment of deficiency states using the sublingual formulation of vitamin B₁₂.

James Neville, MD
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The preceding letter was referred to Dr Swain, who responds as follows:

With regard to Dr Neville's question, during our extensive search on the topic I never saw anything in the medical literature about sublingual preparations. Although this dosage form has some theoretic advantages in absorption, I would be hesitant to endorse a product such as this without the standard pharmacokinetic studies. As a result of Dr Neville's letter, I did go on a "field trip" to see what was being sold at our local health food store. I found a preparation with 1000 µg of vitamin B₁₂, 400 µg of folate, and ginseng touted as a sublingual preparation for energy. Unfortunately, under the umbrella of a nutritional supplement, these products are not subject to the scrutiny given

to vitamins produced by drug companies and used for medicinal purposes. Also, the preparation was not cheap (\$16.00 for 60 capsules at our store). I therefore would not recommend it. If it was to be used, however, I would certainly follow the patient's methylmalonic acid and homocysteine levels to be sure that they were reduced with this therapy.

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BENZODIAZEPINES IN ALCOHOLICS

To the Editor:

At the present time, many hundreds of papers in leading medical journals condemn the prescription of benzodiazepines for the treatment of anxiety in alcoholics and in drug-dependent persons.¹ The rationale behind this condemnation relates to the possibility that an alcoholic or a drug-dependent person might be more likely to become dependent on a prescribed benzodiazepine medication.

Despite these hundreds of critical papers, however, there are actually few studies that demonstrate such a resultant drug dependence in reasonable dose ranges (ie, a maximum of 20 mg of diazepam-equivalents per day) and in treatment periods of less than 6 months. When neither of these two limits were exceeded, the number of alcoholics or drug-dependent persons who became dependent on the benzodiazepine were actually very few.

Yet this paucity of such findings tends to contradict that an estimated 8% of American adults have one or more symptoms of alcoholism, an estimated 6% of American adults have current problems with illicit drugs, and at least 10% of the population of developed nations has had benzodiazepines prescribed at some time in the past year.¹

It can be argued that only very few alcoholics or drug-dependent persons have had benzodiazepines prescribed by their physicians, but there is no factual basis for this argument. For example, in a study of psychiatric consultation notes,² only 55% of medical records mentioned whether the patient had a history of substance abuse. Further, if patients were questioned about such alcohol or illicit drug use, it is certain that many would deny it. Even when patients are asked by their physicians whether they are alcohol-

ics and they answer affirmatively, between 9% and 27% of physicians will still prescribe a benzodiazepine.^{3,4}

In the case of the latter study, as many as 27% of "pure alcoholics" had "used prescribed tranquilizers according to usual medical practice."⁴ On the basis of these studies, between 1.5 and 4 million alcoholics in the United States are currently taking prescribed benzodiazepine medications. Since many alcoholics will take benzodiazepine drugs in place of alcohol,^{1,5} it can be successfully argued that a primary indication for the judicious use of benzodiazepines is the presence of alcoholism. Such patients would live considerably longer than those denied the medication because judicious benzodiazepine prescription has little effect on life expectancy, while alcoholism results, either directly or indirectly, in the deaths of approximately 100,000 Americans each year.⁶

Even if the prescription of benzodiazepines to alcoholic patients resulted in only 10% of them stopping or significantly decreasing their alcohol intake, the result would be the survival of 10,000 individuals who might otherwise be expected to die from the effects of their drinking. Is not one of the primary goals of medical practice the prolongation of life which might otherwise be terminated?

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References

1. Woods JH, Katz JL, Winger G. Benzodiazepines: use, abuse and consequences. *Pharmacol Rev* 1992; 44:151-347.
2. Small GW, Fawzy FI. Data omitted from psychiatric consultation notes. *J Clin Psychiatry* 1988; 49:307-9.
3. Graham AV, Parran TV, Jaen CR. Physician failure to record alcohol use history when prescribing benzodiazepines. *J Subst Abuse Treat* 1992; 4:179-85.
4. Ashley MJ, le Riche WH, Olin JS, et al. 'Mixed' (drug abusing) and 'pure' alcoholics: a socio-medical comparison. *Br J Addict* 1978; 73:19-34.
5. Malka R. Role of drug therapies in the treatment of alcoholism: alcohol and anxiety, alcohol and depression. *Clin Neuropharmacol* 1988; 11(suppl 2):S69-S73.
6. Stoudemire A, Hales RE. Psychological factors affecting medical conditions and DSM-IV. In: Stoudemire A. Psychological factors affecting medical conditions. Washington, DC: American Psychological Press, 1995:6.

SOAP TO SNO CAMP

To the Editor:

The article by Larimore and Jordan (*Larimore WL, Jordan EV. SOAP to SNO CAMP: improving the medical record format. J Fam Pract 1995; 41:393-8*) is an interesting method of charting to justify the level of evaluation and management service coded. I am particularly supportive of their recommendation to always include counseling as a part of every visit's documentation. Unfortunately, I do not believe that it need necessarily be the case that "the physician's opinion of the NPP [nature of the presenting problem]—not an auditor's—is a vital component of documentation." Our assessments (diagnoses) can readily be assigned an approximate level of seriousness or severity based on CPT definitions.

The article further states that the level of complexity of "medical decision-making is best assessed by the physician . . ." and defined by the physician's statement of that level. Although I conceptually agree with this statement, 1995 guidelines from HCFA and CPT have introduced an explicit method that will be used by auditors to define the complexity of decision-making based on elements documented in the medical records. Thus, the physician's statement would appear to be superfluous.

Michael L. Adler, MD
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The preceding letter was referred to Dr Larimore and Ms Jordan, who respond as follows:

Although the HCFA documentation guidelines (and, for that matter, the CPT definitions) for evaluation and management (E&M) codes include a method for selecting the medical decision-making (MDM) component of the E&M documentation, this component is still a subjective measure, and even more so to outside observers or auditors. To consider the published guidelines as "explicit," as maintained by Dr Adler, is problematic at best. Others commenting on HCFA's and CPT's guidelines have commented that they are "more striking for what they leave unsaid than for what they say" (*Edsall RL, Moore KJ. Thinking on paper: guidelines for documenting medical decision making. Fam Pract Manage 1995; Apr:49-58*).

Although the guidelines tell a physician what a reviewer may be looking for in determining MDM (if the physician does not specify or inaccurately specifies the MDM), they do not give a physician's staff enough information to determine the MDM from the documentation. This contrasts with the guidelines for the history and examination, which are more explicit and easier to use. Therefore, we maintain that it is at least as important for physicians to document their own MDM "post-guidelines" as their "pre-guidelines." A medical director for Medicare Part B has said in one published report that "while it may be possible for an astute assistant to determine the level of history and the level of physical examination performed, only the physician can determine the level of medical decision making . . ." (*Edsall and Moore*).

The primary reason for this is that one element of MDM, ie, the number of diagnoses or management options, is easily quantifiable if the physician records the differential diagnosis. However, the other two—amount and/or complexity of data to be reviewed, and risk of complications and/or morbidity or mortality—are not readily quantifiable except by the physician. If the physician chooses not to document his or her professional view of the MDM, there is then a risk of others, probably nonphysicians who may not appreciate the subtleties of medical practice, undercoding or undervaluing the physician's decision-making process. An excellent discussion of how a physician can easily and accurately document MDM is available from the American Academy of Family Physicians (*Edsall and Moore*).

The table of risk provided by HCFA to help determine the level of risk (NPP) contains common clinical examples but not absolute measures of risk. The assessment of risk of the presenting problem(s) is to be based on the risk related to the disease process anticipated between the present encounter and the next one (and/or last one). We believe this determination is best and most accurately made by the physician who sees the patient. For example, chest pain could represent an NPP of high severity, eg, exertional chest pain associated with diaphoresis and left arm radiation, or an NPP of low severity, eg, substernal pain relieved by antacids in a young female during final exams, although the history, examination, differential, and clinical information

reviewed may be nearly identical. Therefore, we believe that it is valuable for the physician to specify and document the NPP in the note.

We hope these comments clarify our recommendations for including NPP and MDM in the SNO CAMP format, even after our government has so willingly offered, once again, to "help physicians out."

Walter L. Larimore, MD
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Elizabeth V. Jordan, CCS
Reston, Virginia

MANAGED CARE IN THE HOUSE OF GOD

To the Editor:

The recently published editorial "A Patient's Guide to Managed Care in the House of God"¹ reflects a cynicism that is not surprising in view of the pressures now confronting American health care in response to unsustainable increases in medical costs. Reading the essay may help clinicians address their feelings of anger and frustration. Unfortunately, it may also induce a sense of futility and inhibit clear thinking about how physicians and other professionals should respond to the present situation.

The doctor-patient relationship is less permanent today than it was in the time of Marcus Welby, but it has not disappeared altogether and will not do so if it is utilized effectively. Faced with a patient who is being forced to change doctors, a physician can minimize the emotional impact and facilitate continuity through the time-tested steps of obtaining information from the patient's previous doctor and helping the patient work through the gloomy feelings that often accompany the loss of a nurturing interpersonal relationship.

Samuel Shem's novel, *The House of God*,² describes a teaching hospital so flawed that cynicism was epidemic among the resident physicians, one of whom ended his despair by jumping out of an eighth-story window. Are we so morally bankrupt that we cannot do better?

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References

1. Slomka J. A patient's guide to managed care in the house of God: the best care is less care. *J Fam Pract* 1995; 41:441-2.
2. Shem S. *The house of God*. New York, NY: Dell Publishing, 1978.

To the Editor:

The editorial in the November issue of the *Journal* by Slomka (*Slomka J. A patient's guide to managed care in the house of God: the best care is less care. J Fam Pract* 1995; 41:441-2) is a sad commentary on the way that many people view the changing health care environment in the United States. She obviously believes that there is no chance that a physician can act in a patient's best interest when there are economic incentives on the line. She also implies that managed care organizations and other insurance companies are unable to act in the best interests of the patients.

Excuse me, but I am tired of hearing about how having incentives to save money would suddenly turn me into a morally corrupt individual. Somehow people tend to forget that the current fee-for-service system rewards me for doing multiple expensive procedures, even though they may not be in the best interests of my patients. It also rewards me for seeing more patients, much like managed care systems. However, given all of these "market forces," I feel that I have been able to keep my perspective when treating patients and have managed to act in their best interests. The same is undoubtedly true of my family practice colleagues, as we did not choose the specialty of family medicine with economic incentives on our mind.

I do not share Slomka's pessimism regarding the changing health care environment. I feel the current system is ethically unfit, dividing us into a nation of "haves" and "have-nots." If it means having to withhold unneeded care from the "haves" in order to provide basic care to the "have-nots," then I am all for it. And the best part about the system is that it utilizes the talents of family physicians to ensure that it runs well.

Wayne M. Kohan, MD
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Kennewick, Washington

To the Editor:

I read with some degree of interest the editorial by Jacquelyn Slomka cynically subtitled "The Best Care Is Less

Care" (*Slomka J. A patient's guide to managed care in the house of God: the best care is less care. J Fam Pract* 1995; 41:441-2). What is to be gained by this simplistic attack on the practice (not, however, the concept) of managed care? It should be now be obvious to even the most casual observer of health care policy that there exists the possibility for poor patient care in the misapplication of the philosophies behind managed care. Under the past fee-for-service system, there were also many instances of poor patient care, including elective cesarean sections based on patient or doctor preference rather than sound surgical indicators; prolonged hospitalizations when it was inconvenient for family members to take a patient home and adequate insurance was present; and physician and hospital refusal to provide needed timely care when a patient had neither public aid nor insurance.

The philosophy of managed care should be "the best care is the appropriate level of care," and I do not think I am being naive when I say that with our best efforts and continued perseverance, this will be our country's health care philosophy.

Kevin Cullinane, MD
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To the Editor:

Jacquelyn Slomka's editorial was amusing, but it was also a bit dismaying in its unremitting negativity. The fact is, it is not necessary to be paid on a fee-for-service basis to provide good, compassionate patient care. In the past, we could do as much as we wanted and take as much time as we wanted, and charge as much as we wanted. Those days are gone forever.

We need to work on how to provide good care in the new environment. It requires new skills and new ways of doing things, but it can be done. We cannot just sit around bemoaning our fate.

Gary D. Salkind, MD
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The preceding letters were referred to Dr Slomka, who responds as follows:

Drs Salkind, Cullinane, and Kohan imply that a criticism of managed care is a de facto defense of fee-for-service medicine.

This either/or perspective—that our only options are either fee-for-service medical care or the growing system of for-profit "managed" medicine—is, I believe, a false dichotomy. Other kinds of health care reform, eg, a single-payer system and medical savings plans, have been proposed, but societal consideration of alternatives is being overshadowed by the rapid rate and extent of the "corporatization" of health care.

The paradigm shift from insuring the individual patient to insuring groups of patients is apparent throughout the literature on managed care. The need for and necessary components of an annual physical examination have been debated in the past, but now financial incentives to limit care are raising these questions again.¹ The increasing external imposition of time constraints on the physician-patient relationship, as well as the gatekeeper role, also are discussed frequently in the literature. The growing number of lawsuits against primary care physicians for "failure to diagnose" has been noted,² as well as the dismissal of physicians who place their patients' interests above the corporation's.³

Not all managed care organizations are "immoral." In general, the not-for-profit groups are said to have a good record of providing high-quality care at reasonable cost. It remains to be seen, however, whether the "moral" managed care organizations will be able to retain their ethical principles in the face of intense competition from for-profit health care corporations. With regard to the motivations of physicians and financial incentives, it is probably true that the majority of family practice physicians choose to practice medicine for personal and professional fulfillment rather than for purely financial reasons. Dr Kohan and most other physicians may sincerely believe that external incentives will not influence their judgment and ability to act in their patients' best interests, but research has shown that incentives can and do influence physician judgment.⁴

I appreciate Dr Gillette's perspective that the doctor-patient relationship can be utilized to help patients work through a sense of loss if forced by their insurance plans to change physicians, but will most doctors have the time to do so as time constraints and pressures to see more patients are increasingly imposed upon physicians? What can be said about a medical system that increases the pain and suffering of illness by adding more pain and stress as a re-

sult of bureaucratic procedures? Furthermore, what explanation should be given to the patient, especially when such changes in coverage have more to do with the insurer's profit margin than with the patient's medical benefit? A similar quandary about what to tell the patient exists when physicians are given financial incentives to withhold information, treatments, or tests that would be in the patient's best interest. The recent publicity about physician "gag rules"⁷⁵ highlights the ethical dilemma for physicians in this situation and underscores the strain being placed on the integrity of a physician-patient relationship in which mutual honesty has traditionally played a crucial role.

This piece was intended as both humor and critique. I hope it persuades readers to consider what I believe are two very real dangers to the physician-patient relationship in this new age of medicine: the potential loss of access to healing, in the relational sense, not simply in the "tests and treatment" sense; and the patient's and society's loss of faith in the healer's ability to act in the best interest of the patient.

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References

1. Frame PS. The complete annual physical examination refuses to die. *J Fam Pract* 1995; 40:543-5.

2. Crane M. The malpractice dragon wasn't dead—just asleep. *Med Econ* October 24, 1994: 52-9.
3. Woolhandler S, Himmelstein DU. Extreme risk: the new corporate proposition for physicians. *N Engl J Med* 1995; 333:1706-8.
4. Orłowski JP, Wateski L. The effects of pharmaceutical firm enticements on physician prescribing patterns: there is no such thing as a free lunch. *Chest* 1992; 102:270-3.
5. Gray P. Gagging the doctors. *Time Magazine* January 8, 1996; 147(2):50.

TESTING FOR ANERGY

To the Editor:

When a roommate of a patient with acquired immunodeficiency syndrome (AIDS) developed a positive Mantoux test, our local health department asked me to test my patient. When the initial Mantoux was negative, they required tests for anergy. After considerable expense (and time spent calling numerous pharmacies), we obtained *Candida* and mumps antigens. The average wholesale cost for 1 mL (10-dose vial) of mumps antigen is \$48.13; and for 1 mL of *Candida* antigen is \$16. He did react to them, but we have not used them since.

I have since discovered a simpler and less expensive method to test for anergy. A 34-year-old man and his 28-year-old wife both developed 13 mm of induration to what we thought were intradermal PPD injections. While we were trying to

figure out how this low-risk couple could have contracted tuberculosis, my medical assistant realized she had injected them with tetanus toxoid.

I reviewed the literature for similar occurrences and found several studies that support the use of intradermal tetanus toxoid (TT) to test for anergy in previously immunized individuals.¹⁻³ Positive results were similar to those obtained using *Candida* and mumps antigens. In the future, I plan to use intradermal tetanus toxoid as a readily available, inexpensive antigen to test for delayed hypersensitivity. If it is positive, no further testing would be needed. If negative, one study suggested the use of a booster immunization with TT.³

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References

1. Delafuente JC, Eisenberg JD, Hoelzer DR, Slavin RG. Tetanus toxoid as an antigen for delayed cutaneous hypersensitivity. *JAMA* 1983; 249:3209-11.
2. Whittingham S, Feery B, Mackay IR. Use of tetanus toxoid for testing cell-mediated immunity. *Aust N Z J Med* 1982; 12:511-4.
3. Johnson C, Walls RS, Ruwoldt A. Delayed hypersensitivity to tetanus toxoid in man: in vivo and in vitro studies. *Pathology* 1983; 15:369-72.



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