

ate solutions have been used by some investigators and are commonly used in some countries as 1/6 M sodium bicarbonate (1.4% sodium bicarbonate),³ we agree with others^{4,5} that they should be isotonic or even slightly hypotonic. Since normal saline, commonly called isotonic saline is in fact slightly hypertonic (154 mmol per liter of sodium and chloride), the alternation with 100 mmol of bicarbonate in 1 liter of 5% dextrose is the most appropriate option if alkalinization is used. If 0.45% saline is to be used, it should be combined with 50 to 70 mmol of bicarbonate (rather than the 100 mmol listed in Table 3 of our article). As recommended in the text, volume repletion and alkalinization in patients with rhabdomyolysis should be monitored by the frequent measurement of levels of urine pH and serum bicarbonate, potassium, and calcium.

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Primary Care — Lifelines and Shortages

TO THE EDITOR: In their Perspective article (June 25 issue),¹ Bodenheimer et al. accurately depict our nation's intensifying primary care crisis. Although studies have found that increasing the number of primary care physicians leads to better and cheaper health care for their patients,²⁻⁴ surveys also portray these doctors as physicians under siege.⁵ One necessary reform is the equalization of compensation between general and specialty physicians.

Our U.S. system pays much more for procedures than for the medical management of illness. In my specialty of orthopedics, Medicare will approve a charge of approximately \$60 for my most common office visit but will permit a charge of over \$350 for carpal-tunnel-release surgery and over \$1,100 to fix a fractured hip. The carpal-tunnel procedure takes me as long as a simple office visit, whereas the hip surgery routinely requires the time of three patient visits. The great extent of these variations in reimbursement cannot be rationally justified.

Addressing these inequalities must be a part of any health care reform package. Our country cannot tolerate a reduced supply of primary care physicians and the corresponding decreased health of our citizenry. We specialists should be quite proud of the enormous contributions that we

make, but we cannot claim that our therapies are more important than the medical management of illnesses such as heart failure and diabetes. We need to view reimbursement from the vantage point of our primary care colleagues; specialty physicians have long opposed Medicare's relatively modest sustainable-growth cuts in reimbursement. Can we envision accepting a 60% cut? We would never willingly tolerate that level of compensation, but it is the current average for family physicians.⁶ In a recent survey of primary care physicians, only 17% felt that their practices were "healthy and profitable."⁵ Specialists should support reimbursement rates that close the gap among physicians and thereby improve the viability of primary care. Although new rates would come at a cost to specialists, the benefit to our patients' health must be our primary concern.

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TO THE EDITOR: Primary care indeed needs a life-line, as Bodenheimer et al. suggest. Unfortunately, the reasons for our ever-shrinking ranks of primary care physicians are myriad and complex, as Steinbrook points out in his Perspective article in the same issue of the *Journal*.¹ An important perspective is conspicuously absent from this debate, however: that of current medical residents and recent graduates like me.

Potential primary care physicians are lost at two critical branch points. The first occurs during medical school, when many students match directly into subspecialties. The second occurs later, during residency, when trainees rely on on-the-job experience to inform decision making. Here, a number of frustrations seemingly underlie my generation's avoidance of primary care practice, and not just the ones mentioned in recent survey literature.² With many resident clinics being understaffed and serving impoverished populations, the frustrations of modern primary care practice are amplified exponentially for us, and the true joy of caring for patients becomes obscured.

Further inquiry, beyond surveys, is needed. In learning more about the experiences of modern trainees, we stand to learn more about potential solutions. Unfortunately, no one seems to be asking us directly.

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TO THE EDITOR: The Perspective articles by Bodenheimer et al. and Steinbrook concerning primary care practitioners focus entirely on physicians. Many of their points are well taken, but the lack of consideration of the increasingly important

contributions of nonphysician clinicians is a notable omission. For example, nurse practitioners have repeatedly been shown to perform as well as physicians in primary care settings^{1,2} as both physician extenders and physician substitutes. The latter role is increasing as more states grant nurse practitioners virtual independence of practice. Not inconsequentially, they are far less expensive to train than are physicians. This issue is important as we contemplate the expansion of our clinical workforce, since it is not at all clear that we have the capacity to significantly increase resident training in the United States.³ Accordingly, comprehensive planning designed to craft a workforce that is responsive to current and future needs requires a broad view — one encompassing the various health care professions.

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THE AUTHORS REPLY: Rickert makes the excellent point that specialists need there to be a vibrant primary care foundation to the health care system; otherwise, patients will be asking orthopedists to treat their diabetes and cardiologists to do Pap smears. We invite all specialists to join Rickert in a “specialists for primary care” campaign. Rickert has publicly stated what many specialists tell us privately — that their procedures are overvalued in relation to their own cognitive services. Health care reform provides an opportunity to correct the outdated methods used to determine the relative values that are the basis for Medicare and commercial-insurer fee schedules. Basing relative values on actual measurement of the time it takes to perform the various services physicians offer, rather than relying on flawed estimates from specialty societies, would lead to more accurate pricing and contribute to the shift in reimbursement that Rickert recommends.

We agree with Edelman that nurse practitioners and physician assistants are key contributors

to the primary care workforce and perform as well as physicians in many primary care tasks. But primary care is as broken for nurse practitioners and physician assistants as for physicians. The percentage of physician assistant graduates entering primary care is consistent with the trend for the percentage of medical school graduates entering primary care — each shows the same steep drop. Data are less clear for recent nurse practitioner graduates, but there is suspicion that a growing percentage of these clinicians are also entering specialty practice. We need to develop and pay for new models of practice that make primary care a more hospitable and satisfying career for clinicians of all stripes — physicians, nurse practitioners, physician assistants, and other professionals and staff members collaborating in these practices. Primary-care-team models are evolving in which physicians, nurse practitioners, and physician assistants provide clinician-level services, with other team members — registered nurses, pharmacists, medical assistants, and health coach-

es — taking on delegated roles in routine long-term and preventive care services.

Despite the partisan rancor evident in the current health reform debate, there are portions of health care reform bills that everyone can agree with — increasing financial investment in primary care, transforming primary care practices throughout the country into high-performing patient-centered medical homes, and launching a nationwide system of primary care extension agents (practice facilitators) to assist practices in making needed improvements.¹

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Aprepitant as an Antipruritic Agent?

TO THE EDITOR: The Sézary syndrome is a leukemic, cutaneous, epidermotropic T-cell lymphoma. Pruritus, insomnia, and depression impair the quality of life and can lead to suicide.¹ Substance P is a key mediator of pruritus.² An increase in the expression of its receptor, neurokinin-1, has been reported on keratinocytes in pruritic skin diseases.³ Aprepitant is an oral neurokinin-1-receptor antagonist.⁴ It is widely used as an antiemetic agent in chemotherapy-induced nausea and vomiting.⁵ However, its action suggests a potential reduction in substance P-induced pruritus, even though pruritus is considered a rare side effect of this drug.

We report on three patients with the Sézary syndrome in whom pruritus was the main symptom and could not be controlled with conventional therapy. All three patients presented with erythroderma and were about to undergo or had recently begun extracorporeal photochemotherapy. They were hospitalized because of pruritus and pruritus-related insomnia and depression, despite intermittent application of corticosteroid ointment. An evaluation of pruritus by means of a visual-

analogue scale, in which a score of 0 indicates no pruritus and a score of 10 indicates the worst pruritus imaginable, resulted in scores of 7, 8, and 9 in the three patients, respectively. Evaluation of quality of life with the Dermatology Life Quality Index (DLQI) questionnaire (range, 0 to 30; higher scores indicates worse outcomes) resulted in scores of 22 in Patient 1 and 17 in Patient 2. The DLQI score was not estimated in the third patient, who was elderly and living in an institution. The day after we started administering oral aprepitant (80 mg daily), the scores on the visual-analogue scale fell to 2, 3, and 2, respectively. One week later, the visual-analogue scale scores were the same and the DLQI score was 8 in Patient 1 and 4 in Patient 2. For Patient 3, the institution staff reported important lessening of the pruritus and improvement in sleep. All three patients reported diminished insomnia and better quality of sleep. No effect was seen on erythroderma.

When aprepitant was initiated, the patients were using only emollient creams and no corticosteroid ointment. Their regular treatment was