in the article the 1-hour efficacy rate was only 47%, when placebo rates usually approach 35%.[1] This study also listed prominent side effects, which make this therapy less than ideal. The other study cited involved intramuscular administration of butorphanol, in an unblinded fashion, without a placebo control group.[2] With respect to chlorpromazine, the recommendation includes a dose of 50 mg given intramuscularly, although the only cited article refers solely to the intravenous dose.[3] In a different study of chlorpromazine (1 mg/kg, given intramuscularly), which included only patients with aura (the minority of migraine sufferers), approximately 20% of patients experienced significant orthostatic hypotension.[4] In fact, orthostatic hypotension is a well-known and common side effect of chlorpromazine, although this was not mentioned in the trial by Lane, McLellan and Baggoley cited in the article.[3] With respect to dexamethasone, the class of recommendation is really fair to poor. With respect to ketorolac, the evidence supporting its effectiveness in moderate migraine is stronger than the evidence concerning severe and ultra-severe migraine, and the side effects (nausea and dyspepsia) are far more common with the oral form than with the intravenous or intramuscular forms. With respect to meperidine, the doses should be given as milligrams per kilogram. For severe and ultra-severe attacks, doses are more appropriately titrated intravenously to achieve pain relief. Although addiction is a feared effect, a study by Langemark and Olesen[5] showed that the risk of dependence on narcotics secondary to treatment of migraine is 1.3 per 100 000 population. A more realistic fear is that a physician may be taken in by a drug-seeker claiming to have migraine.

The article did not mention a case series involving the use of haloperidol. Given intravenously, haloperidol therapy resulted in a 100% response rate and a decrease in pain scores from 8.4 to 1.0, on average.[6]

It should have been clarified that use of lidocaine intranasally has only a 50% efficacy rate.[7]

I hope that these guidelines are just a beginning and a basis for discussion and further refinement, particularly with respect to treatment of the most problematic cases, which are the ones we see in the emergency department.

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[Two of the authors respond:]

It is well understood that guidelines must be ever-changing; revision is certainly planned, for publication in approximately 2 years' time.

We realize that emergency physicians often see patients with severe and ultra-severe attacks; for this reason the consensus panel included a prominent emergency physician, who was extremely forceful, as was appropriate in the circumstances. However, since the article represented the position of the Canadian Headache Society, authorship was restricted to members of the society.

The methodology of migraine research has changed over the years. Before the studies of sumatriptan, the design of trials was very variable and often poor, making it difficult to interpret and to compare the literature. The studies conducted after the sumatriptan trials have all followed the same basic system, although this is not to say that the trials are ideal. Indeed, at the International Headache Congress held in Amsterdam in June 1997, guidelines for future studies were discussed and the consensus was that even the methods of recently published studies were somewhat simplistic and needed revision. The definition of "responder" was a particular problem. With further refinement, we hope that future studies will be more realistic and comparable. The assessment of quality of life in current studies is extremely important, as interest is shifting away from the 1-time efficacy of medications to their impact on the patient's life.

In regard to butorphanol, the study by Elenbaas and associates[1] was of different intramuscular doses and involved patients with migraine (with and without aura) and with cluster headache. The study by Holfert and associates[2] involving butorphanol nasal spray found that migraine pain was reduced from moderate, severe or incapacitating to slight or absent within 30 minutes in 15 patients (33%), within 1 hour in 50 patients (47%) and within 6 hours in 76 patients (71%), compared with, respectively, 2 patients (4%), 8 patients (16%) and 15 patients (30%) taking a placebo. The placebo-response rates in this study are unusually low, but it is otherwise difficult to argue with these figures.

We agree that orthostatic hypotension is a significant side effect of

chlorpromazine, although it can be obviated by giving 500 mL of normal saline solution intravenously before administration of the drug.

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Alcohol left out of health promotion for young people?

We read the article, "School-based health promotion: the physician as advocate" (*Can Med Assoc J* 1997;156:1301-5), by Dr. J. William Mackie and Peter Oickle, with interest. It is heartening to see that some physicians acknowledge their responsibility in school and community health promotion and are prepared to devote time and effort to it. We were puzzled, however, to see smoking, but no other substance abuse, listed among the 8 "complex health and social risks" facing Canadian children today. In fact, the sole reference specifically to alcohol is as the 35th of 36 elements of the comprehensive school health approach. "Restrictions on alcohol abuse" follows "ban on tobacco use" but is far less stringent.

We commend the tobacco abuse program adopted by the CMA and the Canadian Association for School Health. Judging from this article, however, one might infer that physicians and school health professionals have assigned a lower priority to abuse of alcohol and other drugs. Doesn't alcohol abuse in the schools demand at least as urgent and radical action as smoking? Perhaps smoking is viewed as a more important target, to be dealt with first. Or are we facing a more general problem: ambivalence toward an old friend?

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[One of the authors responds:]

Our article presented a health education program, Comprehensive School Health, that had the greatest effects on attitudes and behaviour related to reducing the risk from a variety of threats to health. Reducing tobacco use was selected as an example, not because it is a high-priority issue, but because it is known to most physicians in Canada. Certainly, alcohol and drug abuse are important issues, as are unplanned pregnancy, sexually transmitted diseases, safety and reduction of violence, self-esteem, nutrition and physical activity. These topics are most effectively presented when the health curriculum is enhanced by supportive health services in a healthy school environment, with social support from outside agencies.

The Comprehensive School Health model was supported by the CMA at its General Council in 1995. Individual physicians can and do offer their services and expertise in curriculum development, health services to students and advocacy of a healthy school environment.

In regard to urgent and radical action, the Heart and Stroke Foundation of Canada at a recent meeting issued a warning to the children and youth of Canada that they will face an unparalleled epidemic of heart disease and stroke in 3 to 4 decades unless there are strong efforts to promote the 4 cornerstones of heart health: good dietary habits, a tobacco-free lifestyle, regular physical activity, and a supportive psychosocial environment. Alcohol misuse can have equally profound effects on individuals and families if education about its dangers is not promoted. However, just as heart health must be taught using this comprehensive approach, so too must other areas of health education.

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Ruling out spinal fractures in trauma

Judging by the number of references in "Variation in emergency department use of cervical spine radiography for alert, stable trauma patients" (*Can Med Assoc J* 1997;156:1537-44), by Dr. Ian G. Stiell and associates, the issue of missed cervical spine trauma remains a hot topic in emergency medicine.

The yield of standard 5-view cervical spine screening films in suspected neck trauma is clearly extremely low. Unfortunately, this observation does nothing to reassure emergency physicians faced with identification of fractures that threaten the spinal cord. No physician wants to be held accountable for missing such a potentially catastrophic injury. As a result, the responsibility for detecting such an injury has been arbitrarily transferred to the radiology service in each of the major trauma centres across the country. Thus, until the spine has been "cleared" by the neuroradiologist, all patients suffering trauma are treated as if a spine fracture exists. On more than a few occasions, this has resulted in unacceptable delays,