

nique — a rapid movement over which the patient has no control. Mobilizations are low-velocity techniques that can be performed in various parts of the available range based on the desired effect. Mobilization techniques have been shown to produce concurrent effects on pain, sympathetic nervous system activity, and motor activity.²⁻⁴ Mobilizations can be prevented by the patient⁵ and are generally considered far safer than manipulations. The majority of physiotherapists in Canada use mobilization techniques on the spine, as opposed to manipulation, while many have trained in both and are able to select the most appropriate technique for the patient's problem. It would be a shame if physicians eschewed this technique by misrepresenting Ernst's excellent commentary.

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[The author responds:]

The comments by Meena Sran and Karim Khan offer an important clarification. The risks of mobilization seems indeed to be much smaller than those of spinal manipulation, though truly convincing data are not presently available. I was interested to learn that

many Canadian physiotherapists have training in both methods and "select the most appropriate technique for the patient's problem." This begs the question of how the most appropriate technique is determined. A recent analysis¹ of 64 previously unpublished cases of complications after upper spinal manipulations demonstrated that no factors are identifiable from the clinical history or physical examination of the patients that would help isolate patients at risk. Essentially, this means everyone is at risk. Spinal manipulation is undoubtedly the mainstay of chiropractors, and it is not surprising that the vast majority of complications happen in the hands of chiropractors.² In my personal experience, physiotherapists in Europe use spinal manipulation less frequently and with more discrimination than chiropractors in Canada.

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Clinical practice guidelines: breast cancer pain

It is disturbing to read the 2001 update of the clinical practice guideline on the management of chronic pain in patients with breast cancer as summarized in *CMAJ* by Chris Emery and colleagues.¹ In the full text of these guidelines the authors state that bone pain from vertebral metastases is very common; however, there is absolutely no mention of surgical stabilization techniques despite the fact that they are an effective evidence-based option for

treating mechanical axial skeletal pain due to bone metastases.

Among their descriptions of treatment options the authors are careful to include descriptions of complementary techniques with little or no evidence for their effectiveness, including neurosurgical ablative procedures such as rhizotomy and cordotomy, and psychotherapy. They fail to mention the excellent outcomes seen with surgical stabilization of pathological vertebral fractures and impending fractures. They even state that "except for spinal cord compression, neurosurgical interventions are rarely required in the management of cancer pain." There is now a large body of literature that supports the surgical decompression and stabilization of spinal metastases as effective palliation of mechanical pain (not only for metastatic epidural spinal cord compression) with acceptable levels of morbidity.²⁻⁵ In fact, surgery followed by radiation appears to be more effective than radiation alone in improving local pain control and survival and reducing postoperative morbidity.²⁻⁶

No longer is it acceptable practice to deny surgical stabilization to appropriate patients with vertebral metastases. At the Combined Neurosurgical and Orthopaedic Spine Program at Vancouver General Hospital we have reported favourable outcomes in these surgically treated patients; we continue to follow their outcomes prospectively and are performing an economic evaluation of surgical treatment in these patients. It is a pity that the guidelines published by Emery and colleagues continue to perpetuate the lack of appropriate referral and access to effective spinal surgical care for this often inadequately palliated patient population.

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[One of the authors responds:]

Marcel Dvorak and Charles Fisher concurred that, in our update of the guideline on the management of chronic pain in patients with breast cancer, no mention was made of surgical stabilization techniques for the treatment of axial skeletal pain due to bone metastases. The guideline was intended to cover the spectrum of pain in women with breast cancer, particularly in common situations. We emphasized the importance of recognizing that pain exists and the appropriate use of pain medications. This latter point is important because of the chronic and frequent underuse of opiates and co-analgesics. We stated that neurosurgical interventions (and we would include spinal stabilization here) are rarely required. Careful identification of patients who potentially might benefit from surgery is important.

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Adolescent stimulant use

Christiane Poulin unfortunately presented confounded and quite misleading findings in her paper on medical and nonmedical stimulant use among adolescents.¹ The major confounder is the inclusion in the student survey questionnaire of diet pills along with other stimulants prescribed specifically for behavioural and emotional disorders.

By combining prescribed stimulant diet pills — which are rarely prescribed to minors — with other prescribed stimulants in an anonymous student survey of prescribed and nonprescribed stimulants, the author obtained findings that do not match available data-based and school nurse survey findings on the prevalence of stimulants prescribed for adolescents.^{2,3} For example, Poulin's finding of a 3:2 male to female ratio of adolescents reporting prescribed stimulant treatment is inconsistent with the customary finding of a 4–5:1 male to female ratio. (The ratio might have been narrowed by female respondents reporting the use of diet pills.)

A more striking disparity is the nearly 50% increase in the prevalence of stimulant treatment from grade 7 (median age 13 years) to grade 10 (median age 16 years). This finding is totally at odds with all available data,^{2,3} including that of Poulin and colleagues from a study using triplicate prescription data on controlled substances in the same locale (Nova Scotia) in 1998.³ Indeed, that study showed that student reporting of medical stimulant use was inaccurate (and confounded). The authors reported a male-to-female ratio of more than 4:1 for methylphenidate and dextroamphetamine prescriptions for school-aged youths. Furthermore, they reported that among youths aged 5–19 years, the highest prevalence of stimulant treatment was in youths aged 10–14 years (the age range in which students in grade 7 would be found), indicating that the prevalence in the 15–19 year age group (the age range in which students in grade 10 would be found) was lower.

The present use of nonprescribed

amphetamine drugs among adolescents is high (4%–5% of students in grade 12 in the US report monthly use of these compounds) and nonprescribed diet pills are used as much by secondary school students.⁴ Clearly, misuse of stimulants by youths is a concern and anonymous student surveys are useful to ascertain the rate. However, such inquiries need to be very precisely defined.

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[The author responds:]

Daniel Safer and Julie Magno Zito question the gender and age ratios observed in our study and attribute differences between our study on stimulants as a group of drugs and studies elsewhere on methylphenidate (in particular) to the inclusion of diet pills in our questionnaire. The inclusion of diet pills along with other prescribed stimulants was noted in our discussion section as a limitation of the present study. However, as Safer and Zito comment in their letter, if stimulant diet pills are rarely prescribed to minors, then one would not expect the inclusion of diet pills to greatly influence male-female ratios of prescribed stimulants. In con-