

causing immeasurable harm to excellent practitioners. This encourages witch hunts and little else. Unfortunately, we do not live in a fair and just society. It is naive to believe that all public and medical administrators have the best interests of departmental practitioners in mind. Too many personal vendettas are carried out by people in positions of responsibility using imprecise data.

Other methods are available that do not require publicly disclosing imprecise information to a public that lacks the degree of sophistication required to understand it.

In addition, the editors of *CMAJ* are guilty of misusing their position by threatening not to give equal access to publication of quality work — simply because institutional identities are withheld. Is it not better to know a problem exists (or not) than to have no idea at all? This kind of arrogant superiority is likely to stifle knowledge acquisition and encourage misuse of imprecise information.

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Reference

1. Hoey J, Todkill AM, Flegel K. What's in a name? Reporting data from public institutions [editorial]. *CMAJ* 2002;166(2):193-4.

Smallpox still poses a threat

Although Erica Weir's recent public health article on smallpox is very informative, it does not actually answer the question posed in the title: Does smallpox still pose a threat?¹ As long as there are stockpiles of smallpox in the world, it poses a real, if small, threat. Smallpox could be released into the population as a result of a bioterrorist attack or if one person with access to the stockpile becomes mentally unstable and decides to release the virus. One syringe of this pathogen released into a crowded subway would be sufficient to

produce several cases of smallpox. Failure to contain even one of these cases could lead to a chain reaction.

I am particularly concerned about the well-being of our first responders. Nurses and physicians under 30 years of age have not been vaccinated. Although protective clothing would provide some protection, it would not be fail-safe. In addition, medical staff might use limited barrier precautions while treating patients with difficult-to-diagnose forms of smallpox until the diagnosis is made.²

We require a strategic plan to contain smallpox that would ensure the protection of front-line workers. There is also a need for more widespread vaccination, possibly with a re-engineered vaccine that has the necessary epitopes to protect without producing toxicity.

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References

1. Weir E. Does smallpox still pose a threat? *CMAJ* 2001;165(10):1380.
2. Henderson D, Inglesby T, Bartlett J, Ascher M, Eitzen E, Jahrling P, et al. Smallpox as a biological weapon: medical and public health management. *JAMA* 1999;281:2127-37.

[The author responds:]

I thank Roslyn Devlin for moving the dialogue on smallpox beyond rhetoric by advocating for the safety of our first responders and calling for a strategic plan.

Erica Weir

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Saskatchewan continues breast cancer screening

Your recent article on gene patenting and breast cancer screening stated incorrectly that Saskatchewan did not provide these genetic-sequencing tests.¹ Saskatchewan is continuing

to offer genetic testing for both the *BRCA1* and *BRCA2* genes to its residents. Because we do not have a local testing facility, we have been sending our DNA samples to a clinical lab in Ottawa since about 1998.

Because Ontario is challenging the matter in court, we have been able to continue providing this service. This is an important point because there is very high demand for this service and we want Saskatchewan physicians to be appropriately informed so that they do not mislead patients who ask about this.

Edmond G. Lemire

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Reference

1. Eggertson L. Ontario defies US firm's genetic patent, continues cancer screening. *CMAJ* 2002; 166(4):494.

Measles vaccine dosage

In a public health piece on measles, Howard Shapiro and Erica Weir state "The second dose [of measles vaccine or measles, mumps and rubella vaccine] should be given at least 3 months after the first."¹ I have reviewed all of the references listed for the article and each one clearly states that the second dose should be given at least 1 month (minimum 28 days) after the first.

Judith Almond-Best

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Reference

1. Shapiro H, Weir E. Measles in your office. *CMAJ* 2001;164(11):1614.

[One of the authors responds:]

Judith Almond-Best is right. The second dose of measles can be given at least 1 month (minimum 28 days) after the first. Somehow in the many versions of the article before

publication, 4 weeks was changed incorrectly to 3 months and not noticed. My apologies.

Howard Shapiro

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Revisiting the modern scientific physician

The articles by Olli Miettinen on the modern scientific physician are thought-provoking.¹⁻⁸ Miettinen writes well, even though it is sometimes hard to negotiate through his prose.

He correctly notes that “a genuinely scientific diagnostician” finds it necessary to identify “what really is the *principal concept* at issue — here that of the diagnostic probability to be quantified, ... the *proportion* in which the illness is present in instances like this”³ The more I read the scientific literature and practise medicine, the more I realize that a diagnosis rests upon many issues that in turn can rest upon a multitude of other factors. Consider, for example, a patient with plantar fasciitis who is obese. She has foot pain that requires a specific diagnosis and treatment. However, her obesity contributes to the presentation of her pathophysiologic illness and is related to various psychosocial variables in her immediate and remote past. A “genuinely scientific diagnostician” therefore has to attempt to establish the roles of each of the contributing factors in the presentation of the primary diagnosis.

The truly modern scientific physician should be aware of the multiple factors that lead to a particular diagnosis and should incorporate them into his or her diagnostic and therapeutic regime. It is not simply an “art” that leads one down this line. It may be “farming” (to which Miettinen alludes early in the series¹), but it is “farming” of the human soma and psyche, in a unified fashion, that will enable the modern physician to make the appropriate diagnosis and de-

termine the appropriate treatment. I believe that rigorous scientific principles can still be used to achieve this goal.

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References

1. Miettinen OS. The modern scientific physician: 1. Can practice be science? [editorial]. *CMAJ* 2001;165(4):441-2.
2. Miettinen OS. The modern scientific physician: 2. Medical science versus scientific medicine [editorial]. *CMAJ* 2001;165(5):591-2.
3. Miettinen OS. The modern scientific physician: 3. Scientific diagnosis [editorial]. *CMAJ* 2001; 165(6):781-2.
4. Miettinen OS. The modern scientific physician: 4. The useful property of a diagnostic [editorial]. *CMAJ* 2001;165(7):910-1.
5. Miettinen OS. The modern scientific physician: 5. The useful property of an intervention [editorial]. *CMAJ* 2001;165(8):1059-60.
6. Miettinen OS. The modern scientific physician: 6. The useful property of a screening regimen [editorial]. *CMAJ* 2001;165(9):1219-20.
7. Miettinen OS. The modern scientific physician: 7. [editorial]. Theory of medicine *CMAJ* 2001;165(10):1327-8.
8. Miettinen OS. The modern scientific physician: 8. Educational preparation [editorial]. *CMAJ* 2001;165(11):1501-3.

The 8 articles by Olli Miettinen are thought-provoking and timely.¹⁻⁸ Medicine as a profession has the obligation to review its basic premises in relation to the needs of society on a regular basis, and Miettinen recommends such a step. The series has removed some of the myths surrounding the concept of the physician and identifies the attributes of the scientific practitioner. This has obvious relevance to how physicians should be taught and trained. As practice is becoming increasingly specialized, Miettinen identifies the need to re-examine what he calls “the medical common.” He has correctly identified the quite necessary relationship between the curriculum, medical licensing and postgraduate training, a subject on which he has previously published.⁹

There are several issues of concern. One wonders what the public response would be, as at the present time the public expects physicians to have a fairly broad pool of knowledge, no matter how specialized they may be. Experience in

different subjects and practices is necessary to the extent that the student will learn to “know about” this broader field of knowledge. As a profession, medicine should consider these concepts in conjunction with the communities it serves so that physicians’ skills and knowledge will meet society’s needs and expectations. It would be of interest to know how Miettinen would accomplish this.

It would be instructive to know how Miettinen’s “medical common” relates to the concept of the core curriculum that has been utilized in curricular design for some time. Is it different in concept, or only in content? It would also be instructive to know what process might be utilized to actually identify “the common.”

Medical education must be constantly re-evaluated, and Miettinen has challenged us to essentially start from the beginning, cutting ourselves loose from Flexnerian traditions. As we do this, the challenge will be to preserve the traditional values that have served society well while adapting to the reality of modern medicine.

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References

1. Miettinen OS. The modern scientific physician: 1. Can practice be science? [editorial]. *CMAJ* 2001;165(4):441-2.
2. Miettinen OS. The modern scientific physician: 2. Medical science versus scientific medicine [editorial]. *CMAJ* 2001;165(5):591-2.
3. Miettinen OS. The modern scientific physician: 3. Scientific diagnosis [editorial]. *CMAJ* 2001; 165(6):781-2.
4. Miettinen OS. The modern scientific physician: 4. The useful property of a diagnostic [editorial]. *CMAJ* 2001;165(7):910-1.
5. Miettinen OS. The modern scientific physician: 5. The useful property of an intervention [editorial]. *CMAJ* 2001;165(8):1059-60.
6. Miettinen OS. The modern scientific physician: 6. The useful property of a screening regimen [editorial]. *CMAJ* 2001;165(9):1219-20.
7. Miettinen OS. The modern scientific physician: 7. Theory of medicine [editorial]. *CMAJ* 2001;165(10):1327-8.
8. Miettinen OS. The modern scientific physician: 8. Educational preparation [editorial]. *CMAJ* 2001;165(11):1501-3.
9. Miettinen O, Flegel K. Medical curriculum and licensing: still in need of radical revision. *Lancet* 1997;340:956-7.