play an important role as a smoking cessation strategy.

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DOI:10.1503/cmaj.1060179

[Two of the authors respond:]

Nicotine addiction in children and adolescents is not the old mantra; it is a new mantra that has emerged over the last 5 years with accumulating evidence that novice smokers can experience symptoms of nicotine dependence early in the smoking onset process. Indeed, until recently, it was generally believed that young people could experiment with cigarettes without experiencing cravings or withdrawal symptoms. Our analysis documents that classic symptoms of dependence, such as cravings and symptoms of withdrawal, occur rapidly after the first puff, before the development of tolerance (i.e., the disappearance of the initial adverse effects, such as nausea and dizziness) and well before regular weekly or daily cigarette use.[1]

We agree with Preston that our paper did not incorporate perceived social benefits of smoking into the description of the natural course of smoking onset. However, current conceptualizations of dependence do take into account the fact that young people weigh the benefits of smoking early in the preparation and experimentation phases of smoking. Future studies on the natural course of onset should perhaps incorporate the evolution of perceived benefits in relation to the appearance of symptoms of dependence and intention to quit.

We agree that our finding that mental addiction can occur even before the first puff may reflect the fact that some people are more susceptible or attracted to smoking because of perceived benefits. However, the onset of mental addiction was closely aligned in many of our subjects with the onset of physical addiction; in reality, it may be impossible to distinguish mental addiction from physical addiction.

For every smoker who quits without experiencing withdrawal symptoms, there are many more who relapse. Randomized controlled trials demonstrate that relief of withdrawal symptoms through nicotine replacement therapy doubles quit rates, providing empirical evidence for the role of nicotine in dependence.[2,3] One could argue that underestimating the biological underpinnings of dependence, and instead relying solely on the notion that dependence is psychological, may underlie the failure of many quit attempts. Smokers who fail in their attempt to quit smoking may become even more disempowered when they are blamed for not having enough willpower to quit.

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DOI:10.1503/cmaj.1060240

Controlling cervical cancer

There has been striking progress in research into cervical cancer prevention. According to a CMAJ news article by Alicia Priest, a vaccine against human papillomavirus types 6 and 18 is about to be introduced in Canada.[1] As Priest notes in the article, fears have been expressed that administration of the vaccine to young girls might increase sexual promiscuity.[2] Moreover, there are concerns about how comfortable young women, parents and health care providers will be about discussing the vaccine.[3]

Despite the availability of the vaccine, policy-makers should not abandon more cost-effective methods of controlling the burden of cervical cancer,[4] such as regular Papanicolaou screening and health education regarding the risk factors for human papillomavirus infection and the clinical problems and long-term complications associated with the infection. These methods have yet to be effectively implemented in some countries.[5]

After the vaccine is introduced, it will be a few years before a reduction in cervical cancer incidence is detectable. In the meantime, it is important to maintain the existing screening programs and to study the acceptability of the vaccine and the feasibility of the programs to administer it.

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DOI:10.1503/cmaj.1060174

Physician resistance to new information technology

The account by Liette Lapointe and Suzanne Rivard of the challenges of implementing electronic clinical information systems in hospitals[1] vividly reminded me of my own experience with such an undertaking 20 years ago.[2] Their report indicates, not surprisingly, that the success of an implementation is determined by the implementers' ability to cope with user expectations and hospital politics. In all 3 of their cases, the introduction of the module for order entry appears to have been the crucial challenge to ultimate success and was the step most likely to provoke physician resistance.

This finding demands further examination. The explicitness inherent in order-entry systems provides a degree of routine transparency and implied accountability to which physicians are not accustomed, and it can provoke physician resistance. I believe that the key to successful implementation lies not in trying to overpower this resistance but rather in circumventing it by exploiting a feature that meets with universal favour. The "problem list" might be such a feature, judging by its inclusion in virtually all of the electronic clinical information systems currently on the market, but presently it is an incidental or optional by-product with little apparent utility. This does not fit with Weed's original concept,[3] in which the problem list was to be the backbone of the patient record.

After more than 30 years of effort, we are still far from having a health care system that is free from the crippling inefficiencies of paper records. A radical rethinking of implementation strategies for electronic clinical information systems is urgently needed.

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DOI:10.1503/cmaj.1060176

Natriuretic peptides and heart failure

We read with interest the recent review by Michael Felker and colleagues,[1] in which they suggest that it may be problematic to attempt to use a common plasma reference level for B-type natriuretic peptide as an indicator of the level of functional heart failure because of the degree of interindividual variation. They suggest that B-type natriuretic peptide levels might vary not only according to age and renal function but also according to the stage of heart failure.

We agree with Felker and colleagues that the stage of heart failure influences plasma levels of B-type natriuretic peptide. For example, in the study by Maisel and colleagues cited by the authors,[2] the mean levels of B-type natriuretic peptide were as follows: 244 ± 286 pg/mL for patients with New York Heart Association class I heart failure, 389 ± 374 pg/mL for those with class II heart failure, 640 ± 447 pg/mL for those with class III heart failure and 817 ± 435 pg/mL for those with class IV heart failure. In that study, however, the standard deviations were large for each group. It therefore seems inappropriate to focus solely on the diagnostic value of B-type natriuretic peptide levels when assessing heart failure grade, although a high plasma concentration of B-type natriuretic peptide probably indicates class III or class IV heart failure. On the other hand, and more important, a lower plasma concentration of B-type natriuretic peptide may also be associated with class III or class IV heart failure. Therefore, a low plasma level of B-type natriuretic peptide does not rule out a progressive decline in heart function if there has only been a single reading.

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DOI:10.1503/cmaj.1060215

Correction

The DOI published with a recent News article[1] was mistakenly listed as 10.1503/cmaj.161715. It should have read 10.1503/cmaj.061715.

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1. Lett D. Manitoba physicians consider DNR guidelines. *CMAJ* 2007;176(3):310-1.

DOI:10.1503/cmaj.070143