



Incorporating preventive care recommendations into clinical practice: How do we bridge the gap?

James D. Douketis, MD

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Since its establishment in 1976, the Canadian Task Force on the Periodic Health Examination (now the Canadian Task Force on Preventive Health Care) has provided evidence-based recommendations for the prevention and early detection of 81 conditions, ranging from screening for phenylketonuria in newborns to vaccination against pneumococcal pneumonia in elderly people.¹ The implementation of these recommendations in clinical practice has contributed, at least in part, to a decrease in morbidity and mortality that has been observed in many diseases (e.g., neonatal and childhood infections, cardiovascular diseases and certain cancers) over the past 30 years. However, several studies have shown that the preventive care practices of Canadian primary care physicians are far from optimal and that opportunities to decrease further the burden of illness in society are being overlooked.²⁻⁵ This situation has been attributed to several factors, including lack of patient contact, patient noncompliance with preventive interventions, time constraints, and inadequate mechanisms to remind patients and physicians as to the need for preventive care interventions.⁴

In this issue (page 1137) Richard Brull and colleagues report the findings of a study in which they investigated the extent to which preventive care interventions were addressed in patients admitted to a general internal medicine (GIM) service of a tertiary care teaching hospital.⁶ This clinical setting might provide an ideal opportunity in which to address preventive care interventions, because patients may be more responsive to these interventions following an acute illness and because general internists, who oversee the care of these patients, play an important role in disease prevention.⁷ The authors identified 10 preventive interventions falling within the scope of general internal medicine that have been recommended by the Canadian Task Force on Preventive Health Care to be implemented in adults. They then determined the extent to which these interventions were addressed in 100 randomly selected patients, either before the current admission to hospital or during the hospital stay. Of the 10 interventions, 7 had been given a grade A or B by the task force, indicating that there is good or fair evidence to implement these interventions.¹ Three interventions (screening for hypercholesterolemia, screening for prostate cancer and screening for colorectal cancer in

asymptomatic adults) had been given a grade C by the task force, indicating that there is insufficient evidence to recommend for or against implementing these interventions.¹

The main finding of the study was that a mean of 46.5% of the total number of preventive interventions that each patient was eligible to receive had been addressed before the current admission within the recommended timeframe, and a mean of 8.7% had been addressed by the GIM service during the hospital stay. Even preventive interventions with a grade A recommendation, for which there is strong evidence to support implementation, were not adequately addressed before and during the hospital stay. For example, of 74 patients eligible to receive a pneumococcal vaccine, 10 (14%) received it before the current admission, and 2 (3%) received it during the hospital stay. The authors conclude that patients were being discharged from the GIM service without adequate attention being given to preventive care interventions, and thus opportunities for disease prevention were being missed.

There are several factors that could explain these findings. As Brull and colleagues acknowledge, performing preventive interventions that are not directly related to a patient's acute medical problem and that might prolong the hospital stay can be difficult on a busy GIM service, where physicians are often under pressure to discharge patients as early as possible. In addition, some preventive interventions that were addressed (e.g., vaccination, Pap smear and counselling about hormone replacement therapy) may be considered part of the practice domain of primary care physicians. Furthermore, patients in a GIM service tend to be older, with a higher rate of comorbid conditions and with a shorter life expectancy than other patient groups. Thus, certain preventive interventions are not likely to improve quality of life or increase longevity. This study did not consider the median age, comorbid conditions or estimated life expectancy of the patients in the GIM service, who in other respects were eligible to receive preventive care interventions.

The problem of missed opportunities for preventive care is not limited to the GIM service. Underuse of recommended practice guidelines and preventive interventions occurs in other hospital and ambulatory care settings.⁸⁻¹² Of particular concern are the low rates at which well-established, simple and effective preventive care recom-



mentations (e.g., those given a grade A by the Canadian Task Force on Preventive Health Care) are being implemented into clinical practice.

How, then, can this pattern be reversed? The root of the problem may be that physicians are so busy handling the acute medical problems that unrelated preventive interventions are not considered and remain overlooked. A system of simple, individualized reminders can have a favourable influence on physicians' practice patterns.^{13,14} In a hospital setting, patient-specific computer-based alerts can remind physicians of possible preventive interventions (e.g., use of anticoagulants as prophylaxis against venous thromboembolism in immobilized patients and avoidance of potentially nephrotoxic drugs in patients with renal impairment).^{15,16} In addition, as Brull and colleagues suggest, a preventive care checklist could be incorporated as part of the patient's hospital chart to remind physicians of interventions that could be addressed during the hospital stay (e.g., screening for hypercholesterolemia) and following discharge from hospital (e.g., smoking cessation counselling). When a patient is discharged from hospital, a standardized discharge summary form that includes a section on age- and sex-specific preventive care interventions could remind the patient's primary care physician of the need for preventive interventions. Finally, the use of electronic medical records would allow easier integration of computer-based preventive care alerts and physician reminders in ambulatory and hospital-based settings.^{17,18}

Because up to 70% of disease is considered to be preventable, effective implementation of preventive care guidelines can have a major impact on reducing the burden of illness in society.¹⁹ However, the amount of data from new clinical trials, updated clinical practice recommendations, and other sources that a physician needs to integrate so as to provide optimum preventive care can be overwhelming. Thus, a simple, low-cost method of reminding physicians about opportunities for prevention could go a long way in bridging the gap between the existence of preventive care interventions on paper and their incorporation into clinical practice.

I thank Drs. John Feightner and Christel Woodward for their helpful reviews of an earlier draft of the article.

Dr. Douketis is with the Department of Medicine, McMaster University, Hamilton, Ont.

Competing interests: None declared.

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Correspondence to: Dr. James D. Douketis, Rm. F-513, St. Joseph's Hospital, 50 Charlton Ave. E, Hamilton ON L8N 4A6; jdouket@fhs.mcmaster.ca

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