## **E**DITOR'S MESSAGE

A cross Canada, health care expenditures have steadily increased over the past decades and under current circumstances, show no sign of stabilizing. Rising public spending on hospitals—including labor costs and diagnostic services—continues to contribute heavily to escalating costs. 1,2

In the wake of increasing health care expenditures, research into inappropriate testing is growing. A meta-analysis published in 2013 estimates that one in five laboratory investigations are ordered unnecessarily (20.6%; 95% CI 16.2-24.9%).3 A key finding was that overutilization was six times more common with initial testing compared to repeat testing (43.9% vs. 7.4%), suggesting problems with over-testing are primarily associated with diagnosis as opposed to monitoring illness. Laboratory investigations are a necessary component of effective healthcare, often forming the principal basis of downstream care. Yet, clinicians and trainees may order inappropriate investigations for reasons including uncertainty, inadequate education feedback, 'routine' practice, and lack of awareness about the costs associated with testing.4

Realization of these problems has given rise to initiatives to curtail widespread inappropriate testing. The Choosing Wisely Canada campaign (http:// choosingwiselycanada.org) was launched in April 2014 and is perhaps the most well known of these nationally. It aims to help both physicians and patients consider whether certain tests or treatments are unnecessary and to promote choices that result in consistent high-quality care. The campaign nicely complements physician-focused education by recognizing patientcentered care and developing public education materials explaining what a certain test or therapy is, its risks and benefits, and why it may be unnecessary. Public engagement is important as it encourages collaborative decision-making and can help meet patient expectations regarding the type of medical investigations that they should receive. While the direct intention of Choosing Wisely is not to reduce health care costs, it is nevertheless hoped that judicious clinical decisions will result in improved value and resource allocation.

A recent article in JAMA Internal Medicine points out that at the very heart of the Choosing Wisely campaign is medical professionalism.<sup>5</sup> Physicians are committed to the health of both their patients and society and ordering inappropriate tests can put patients at risk and jeopardize optimal use of society's limited health care resources. Physicians are ideally positioned to lead change within the health care system and foster these attitudes in medical trainees.

The growing interest in improving efficiency across all areas of medicine leaves an important challenge for

medical students and residents. First, trainees must develop comfort and awareness in making clinical decisions, while at the same time, considering the cost of care.6 Learners are not necessarily trained well in this capacity and may be keen to order extra tests so as to "not miss anything" or to develop a detailed differential diagnosis.7 Training around clinical decision-making and the costs and indications for various tests should be presented in a consistent manner starting early in medical school and continuing throughout post-graduate training. Methods could include integration within the core curriculum, practice discussing the role of certain investigations with simulated patients, and soliciting specific feedback from preceptors during clinical education. Second, medical trainees must take the initiative to innovate and find new ways to improve the efficiency of care. We must learn to question "routine care" and critically think about the technologies we are learning to use in the context of public health care system sustainability.

In this issue of the DMJ, Dr. Robert Farmer presents and analyzes local data about the costs of diagnostic workups for several common clinical presentations. The data shows a striking contrast in costs associated with ordering first-line tests versus more detailed laboratory investigations. Depending on the specific clinical situation, substitution of a more brief initial testing regimen can provide cost savings without compromising patient care. It is hoped that alongside other approaches, increasing knowledge of costs will facilitate more efficient and sustainable diagnostic services and improve patient care in Nova Scotia.

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