



laboratory physician, I try to provide services within a defined budget and I have to live with recommendations and decisions taken in faraway places.

**Roland Jung, MD**  
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#### [One of the authors responds:]

**R**oland Jung raises important questions. Neither the Canadian Society of Nephrology nor the Canadian Task Force on Preventive Health Care has issued a directive about whether serum creatinine testing should or should not be included as part of periodic health examinations. Certainly, widespread population screening is not what we are advocating.

Many physicians perform serum creatinine testing as part of a routine panel of biochemical tests, which may be ordered for many different reasons. The guidelines do suggest a case-finding approach in describing characteristics of patients at high risk for renal failure, in whom serum creatinine should be tested. The guidelines are meant to recommend what should happen when an elevated serum creatinine level is discovered in these settings.

The question about frequency of testing is a difficult one to answer. It was considered by the committee but was not included in the guidelines because there are so many factors that must be considered. For example, annual or biannual testing is sufficient if a patient has mild, chronic and relatively nonprogressive renal failure, whereas monthly testing might suffice for a patient with severe chronic renal failure. Weekly or even daily testing might be required for a patient with rapidly progressive glomerulonephritis.

**David C. Mendelssohn, MD**  
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## Should we preach parsimony for health care?

**W**ebster's dictionary defines parsimony as "extreme or excessive economy or frugality; stinginess." Surely Vahé Kazandjian is not serious in suggesting this as a goal in the provision of health care.<sup>1</sup> "Parsimonious" exactly describes the Canadian health care system at present.

**Gerald E. Sinclair, MD**  
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#### Reference

1. Kazandjian, V.A. Power to the people: taking the assessment of physician performance outside the profession. *CMAJ* 1999;161(1):44-5.

#### [The author responds:]

**I**n my review of the Physician Achievement Review initiative launched in Alberta, I discussed aspects of performance and quality by placing them within the context of quantitative analysis. The spirit of that analysis is to be scientific in its inquiry, implementation, and evaluation. As a guiding principle I proposed that such a series of steps be undertaken with "parsimony" in mind, or parsimoniously.

The golden rule of science is, indeed, that of parsimony. The Law of Parsimony, also called Ockham's Razor, goes back to the 14th century; William Ockham (died *circa* 1349) stated that *non sunt multiplicanda entia praeter necessitatem*, meaning that one should not increase, beyond what is necessary, the number of entities required to explain anything. This law, used sharply by Ockham (hence the razor), assumes that simpler explanations are inherently better than complicated ones. The scientific method of hypothesis generation and testing relies heavily on this powerful tool. In its recommendation to cut to the essence of things, the Law of Parsimony has shaped Western scientific thinking from Galileo to Einstein, who adapted the law as "make things as simple as possible – but no simpler." Epistemological in nature, the principle can be inter-

preted as saying that simpler models are more likely to be correct than complex ones.

The Law of Parsimony has also been used in the context of the definitions of quality health care in a seminal work by Donabedian.<sup>1</sup> He stated that "the use of redundant care, even when it is harmless, indicates carelessness, poor judgment, or ignorance on the part of the practitioner who is responsible for care. It contravenes the rule of parsimony which has been, traditionally, the hallmark of virtuosity in clinical performance."<sup>1</sup>

The societal dimension of parsimony is also critical to health care: providing the appropriate care, at the appropriate time, without waste is the responsibility of the health care provider, who should take into account both quantitative and qualitative aspects of diagnosis, patient management and resource utilization.

It is within the context of scientific rigor, clarity of causal relationships and appropriate decision-making that I have proposed that we should be "parsimonious." The scientifically trained mind functions at its best when the desk is cluttered but the decision paths are stingily chosen.

**Vahé A. Kazandjian, PhD, MPH**  
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1. Donabedian A. *Explorations in quality assessment and monitoring, vol. 1. The Definition of quality and approaches to its assessment.* Ann Arbor: University of Michigan Health Administration Press; 1980. p. 29.

## What's in a name?

**T**he report by Roanne Segal and colleagues on the Oncology Rehabilitation Program at the Ottawa Regional Cancer Centre<sup>1</sup> is interesting, but they do not describe how this program differs from those designed for other diseases. For the label "Oncology Rehabilitation Program" to be valid, the program should deal specifically



with the effects of cancer. Programs are needed to strengthen muscles that may be weakened as a result of peripheral neuropathy, loss of muscle bulk from chemotherapy or the tiredness that can accompany cancer.

The weakness seen in many cancer patients is different from that in patients with other diseases and it requires different techniques. Attention should also be given to problems such as lymphedema following radiation and the pain that accompanies many tumours.

**C.M. Godfrey**

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#### Reference

1. Segal R, Evans W, Johnson D, Smith J, Colletta SP, Corsini L, et al. Oncology Rehabilitation Program at the Ottawa Regional Cancer Centre: program description. *CMAJ* 1999;161(3):282-5.

#### [One of the authors replies:]

On the basis of the traditional medical model, I understand how the label "oncology rehabilitation" would be considered very specific. However, rehabilitation can encompass more than the physical aspects associated with cancer care. It is a process by which a person is restored not only to an optimal physiological but also to a psychological, social and vocational level of functioning. Perhaps "A Comprehensive Rehabilitation Program for Patients Living with Cancer" would be acceptable.

Before this program was launched patients' needs were evaluated, and our initial efforts were in direct response to the views expressed. Previous research showed us that interventions such as a structured physical activity program could influence not only patients' physical needs but also their psychological, social and emotional ones.

Remember when patients were told to rest following a myocardial infarction? With time and research, we have learned otherwise. Similarly, patients living with cancer are unsure of what to do. How much activity or exercise is possible or safe? What can or should they do or not do? In addition, cyto-

toxic therapy is well known for the metabolic and hematological problems it causes, and this forces both physician and patient to be wary.

Because of this, recommendations for exercise programs are rarely if ever prescribed for fear of overexertion. To make matters worse, patients are told to rest and this can potentially lead to further decline in both physical functioning and psychological well-being.

We recognize that our program is incomplete in its current form, in part owing to resource limitations. With ongoing research and further funding, we hope to be able to develop guidelines in all domains of oncology rehabilitation.

**Roanne Segal, MD**

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### The teaching contributions of residents

In an editor's preface regarding the recent 10-fold increase in resident tuition fees (from \$190 to \$1950) at the University of Toronto,<sup>1</sup> you referred to an article on the teaching activities of attending staff<sup>2</sup> and stated that you were "unaware of any published attempts to create a similar accounting of residents' contributions to teaching."

Numerous reports on the extent, quality and impact of the teaching performed by residents have been published. The time residents spend in teaching activities, which includes supervising, instructing and evaluating students and junior residents, has been estimated to be as high as 25% of all resident activities<sup>3,4</sup> and is likely to exceed the teaching time of attending staff. Medical students have rated teaching by residents to be an important source of learning; they have estimated that one third of their knowledge is derived from teaching by residents.<sup>5,6</sup> Resident and faculty teaching behaviours are different and complementary.<sup>6</sup> Students have responded that residents contribute more to their

learning in the clinical setting than do faculty members.<sup>7,8</sup> Investigators are exploring means by which resident teaching may be improved<sup>9,10</sup> as well as evaluating the relationship between teaching and learning in residency.<sup>11</sup> Although no study has fully documented the number of hours residents spend teaching by year or discipline, and no study has ever evaluated the monetary value of residents' contributions to teaching, there is little doubt that residents are expected to perform a great deal and are recognized by medical students as an important source of learning.

The fact that residents perform a great deal of teaching is a separate issue from that of resident tuition fees. There is a lack of acknowledgement and remuneration for clinical teaching activities performed by both attending staff and residents. The decrease in government revenue for medical schools is also an important issue that needs to be addressed. However, to increase resident tuition fees, especially as dramatically as has been attempted, is not an appropriate, effective or fair response. As noted in your editor's preface, teaching must remain a privilege and a duty for both faculty and residents; a concentrated effort to evaluate, promote, improve and increase teaching performed by residents and staff would better support this goal.

**Andrew J.E. Seely, MD**

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#### References

1. The bean counters and the residents [editor's preface]. *CMAJ* 1999;161(5):469.
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