roots and in the stubble should remember that the Council is an elected body.

Harry E. Emson, BM, BCh
Saskatoon, Sask.

[The author responds:]

The Royal College has recently changed and refined its mission statement to dedicate itself to "ensuring the highest standards and quality of health care." Thus, the college and I share Dr. Emson's objective that everywhere in Canada specialized services of the highest quality should be available.

Where we differ is in our interpretation of certain facts and in our opinion as to what can and should be done. Emson appears to argue that Canada is incapable of meeting its own requirements — that 40 years of talk should cause us to throw up our hands and remain forever in a colonial, dependent position. I disagree. I, like him, am proud and feel that we as Canadians have enough to offer that we should be net exporters of our expertise to the rest of the world.

It is ironic that he says the Royal College has not "addressed the issue in any concrete fashion." I believe the "facts" he cites are based on a 1988 Royal College survey and report, which was followed by another in 1995. The college persists in sounding the alarm that Canada will be desperately short of physicians generally, but specialists in particular, by 2011. What is perplexing is that we will have inflicted this wound upon ourselves by slavish adherence to bad advice from a succession of government advisers. Implicitly, they too appear to believe that it is better to have too few rather than too many doctors. After all, we can always import more if we need them.

Consider Saskatchewan. In 1977, its medical school produced 64 physicians. Since then, as in many other provinces, there has been a concerted effort to decrease enrolment. By ministry edict, only 55 students were allowed to enter medical school in Saskatchewan in 1997; throughout this decade, an annual average of fewer than 60 Saskatchewan residents have been able to secure a place in any Canadian medical school. The "relative opportunity" of a Saskatchewan resident to find a place in medical school ranks sixth in Canada — right at the national average, an average that is about 30% below that in the UK. Had the Saskatchewan College of Medicine been allowed (and given adequate resources) to increase enrolment by 10 students per year instead of being forced to decrease enrolment by the same number, the situation would be vastly better and different today in terms of the very real problems Emson describes.

Emson does not like "pejorative epithets" but he uses them freely to describe the Royal College and its Council, which has 2 elected members from Saskatchewan. I suggest we put away the hatchet and instead work together to solve an important and urgent problem that exists "from sea to sea."

Hugh M. Scott, MD
Executive Director
Royal College of Physicians and Surgeons of Canada
Ottawa, Ont.

Can CJD be transmitted through the blood supply?

In the editorial "Human rights, ethics and the Krever inquiry" (*CMAJ* 1997;157[9]:1231), Dr. John Hoey states that "there is evidence that variant Creutzfeldt–Jakob disease (vCJD) can be spread through the blood supply." This statement contrasts sharply with information given to the Canadian Red Cross Society by experts in the North London Blood Transfusion Service, who have stated that "there is absolutely no evidence that vCJD can be spread through the blood supply."

There *has* been conjecture based on tentative evidence that a staining procedure for tonsillar tissues may demonstrate vCJD, as well as a report from Switzerland that the receptor for vCJD may occur on B cells. In addition, studies from the National Institutes of Health have shown that only under certain controlled conditions can the vCJD prion occur in the blood of mice and furthermore that the prion can be transmitted and cause CJD only if the blood is injected into the brain of the mouse; transmission does not occur through the blood–brain barrier. The inaccurate statement in the editorial is disturbing to physicians charged with counselling patients who may have received blood components from donors in whom CJD was subsequently diagnosed. It also stands in stark contrast to the article "Is Creutzfeldt–Jakob disease transmitted in blood? Is the absence of evidence of risk evidence of the absence of risk?" (*CMAJ* 1997;157[10]:1367-70), by Dr. Maura N. Ricketts, who concludes, "Evidence indicates that the risk of transmission of CJD through blood and blood products is not simply rare or even exceedingly rare. It is theoretical."

My experience with *CMAJ* is that it often includes unqualified statements in reports of new medical developments in Canada and the rest of the world. Such statements have the potential to set up a chain reaction among physicians, who will worry and arrive at the wrong conclusions.

Antonio Giulivi, MD
Associate National Director
Medical and Scientific Affairs
Canadian Red Cross Society
Ottawa, Ont.

The editorial by Dr. Hoey was thoughtful and timely, but I was surprised by the statement that vCJD

can be spread through the blood supply. I am not aware of any published data to support this assertion. Experts generally agree that there is only a *theoretical* risk of transmission of either CJD or vCJD through the transfusion or injection of blood components or fractionated plasma products. For example, the Irish Department of Health (and more recently the Belgian Health Ministry) decided to notify and provide counselling to recipients of a radiological dye manufactured from a plasma pool that included a United Kingdom blood donor who died of vCJD.[1] A spokesman for the Irish Department of Health has been quoted as saying there was no evidence CJD could be transmitted by blood or blood products, but the injectable dye was withdrawn as "a precautionary measure."

If there is scientific evidence to support Hoey's statement, I would be most interested in finding out where to obtain the data. However, if the statement is incorrect, please consider publishing a correction.

Bryce Larke, MD
Deputy Medical Officer
Canadian Red Cross Society
Edmonton, Alta.

Reference
1. Birchard K. Irish nvCJD concern. *Lancet* 1997;350:1830.

[The author responds:]

I disagree with the statement that "there is absolutely no evidence that vCJD can be spread through the blood supply." However, I accept Dr. Giulivi's questioning of my statement that "vCJD can be spread through the blood supply." Both are pronunciamentos and have little (or even negative) value. If Giulivi means that there are no reported cases of CJD or vCJD that have been transmitted through the blood supply, then he is right. But this lack of evidence does not mean that such transmission is not occurring. Giulivi is making an all-too-common error, since "the absence of evidence is not evidence of absence."[1]

Science is more than epidemiology. "Biology is complex, messy and richly various, like real life."[2] So what do we know about CJD and vCJD? Spongiform encephalopathies occur in a wide variety of animals. They differ in their histologic features, clinical manifestations (including incubation periods), species preferences and abilities to cross species boundaries and in terms of the inoculum required to cause disease and virulence generally.[3–5]

First described in the 1920s, CJD is rare (1 to 2 cases per million). But because plasma pools may contain units from about 60 000 donors, it is likely that if the disease could be transmitted through the blood supply, it would have been evident by now (unless the doses of infective agent are low and the incubation periods very long). So it is unlikely that CJD is transmitted through the blood supply. (If this is so, then it would be interesting to know why the Canadian Red Cross is withdrawing blood products donated by people with CJD.)

But vCJD is not CJD. We know little about vCJD. It appears to easily cross species borders (e.g., from cattle to humans) and seems to affect primarily younger people.

Worst-case estimates of the number of people in the UK infected with vCJD range up to 80 000 or about 1 in every 700 blood donors.[6] So it is really important to know if vCJD can be spread through the blood supply. Because there is no screening test for