

Patenting move ends BC's gene-testing program

Patenting of a gene-sequencing process has forced the British Columbia Cancer Agency (BCCA) to suspend its testing for the *BRCA1* and *BRCA2* breast cancer genes. A Salt Lake City company, Myriad Genetics, filed an exclusive patent for the process this spring and notified the BC government it would be asserting those rights. After receiving legal advice, the Ministry of Health decided to stop providing testing while its lawyers examine the validity of the claim in Canada. Alberta has taken the same step.

Ministry of Health spokesperson Dr. Neil Fadin is worried that the move by the American company is "the thin edge of the wedge"; 300 samples from patients participating in the BCCA's Hereditary Cancer Program were awaiting testing when the ministry pulled the plug (see *CMAJ* 1999;161[9]:1175).

The gene testing done by the BCCA costs about \$1200 per test, but it takes up to 18 months to get the results because of staffing limitations; the Ministry of Health covers the cost. About 80 families enter the program each month and about 1500 joined in the last 5 years, said Dr. Charmaine Kim-Sing, the program's medical leader.

Myriad Genetics will now charge patients \$3850 for the test, with results available in 6 weeks. All test samples will now go through MDS Laboratories, Myriad Genetics' Canadian partner.

Both the Ministry of Health and BCCA have told newly registered patients in the program that the fees are their responsibility if they proceed. Dr. Simon Sutcliffe, CEO at the BCCA, says the program will continue to offer its other genetic counselling services, and any test results patients purchase from Myriad Genetics will be incorporated into their programs. Kim-Sing says *BRCA* gene mutations are rare and are only found in about 6% of women entering the program. The gene's presence does not indicate that a woman will get breast cancer. "The predictive power of the gene is relatively low," said Sutcliffe.

Jan Engemoen, executive director of the BC/Yukon Branch of the Canadian Breast Cancer Foundation, said the testing is "very important to those women and their families who go through the

[genetic] counselling and are ready to take the test. We hope that this will be resolved and that the Ministry of Health will reconsider its decision [not to pay]." The group gave the BCCA pilot funding for gene testing and contributed to the purchase of its DNA sequencer.

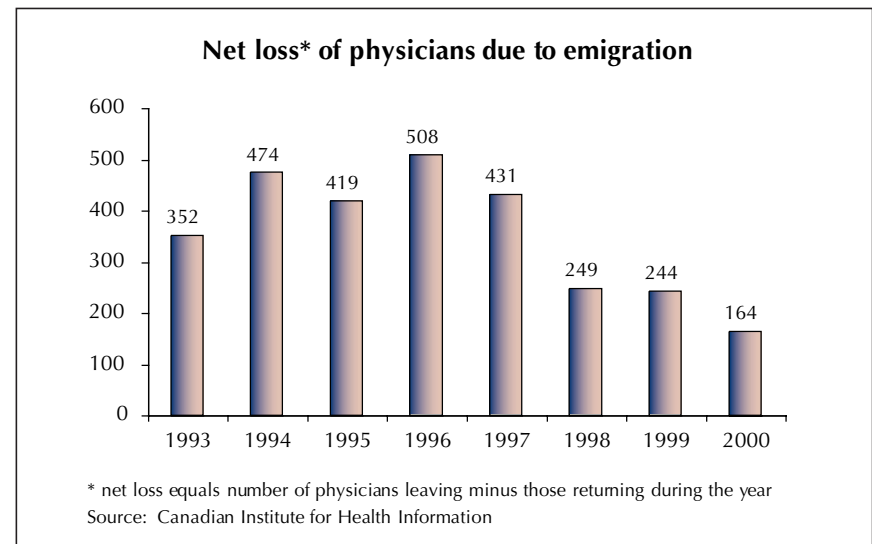
It is too early to predict the impact of the cost increase on the BC program. Sutcliffe says it is the start of a process that will characterize all cancer gene testing, "so this is just opening the door to discussions of how this should be handled." — *Heather Kent, Vancouver*

PULSE

Canada has 57 803 active MDs: CIHI

The Canadian Institute for Health Information (CIHI) reports there were 57 803 active physicians in Canada as of December 2000. Almost 30% were female and more than 5000 doctors (9%) were aged 65 or older. Graduates of foreign medical schools, who comprise 23% of the physician pool, tend to be older than colleagues who were educated in Canada. Only 10% of physicians who graduated within the past 15 years received their undergraduate medical education outside Canada.

The number of physicians within the general population continues to climb slowly from the low of 183/100 000 reached in 1997. It stood at 187/100 000 in 2000; the 1993 total was 191/100 000 population.



Of the 420 active physicians who left Canada in 2000, 61% were certified specialists and 62% graduated fewer than 16 years ago; 256 physicians returned to practise in Canada in 2000, and a significant proportion of them (60%) also received their medical degrees less than 16 years ago. It appears that Canada is now offering physicians a more attractive environment in which to practise compared with most periods during the past decade. The net loss due to emigration in 2000 was 164. This figure is down significantly from the average net loss of more than 400 physicians per year between 1992 and 1997.

However, movement within Canada has not slowed. Each year, approximately 700 active physicians (excluding residents) migrate to another province or territory. In 2000, 247 females and 506 males made such a move, with every province except Ontario, Alberta and British Columbia suffering a net loss. — *Lynda Buske, lynda.buske@cma.ca*