



Features

Chroniques

Michael O'Reilly is a freelance writer living in Marathon, Ont.

Can Med Assoc J 1998;158:380-1

Plasma-collection plant has to overcome tainted-blood fallout in search for donors

Michael O'Reilly

In brief

CANADA'S LACK OF SELF-SUFFICIENCY in blood products has led to the opening of a blood-plasma collection centre in Thunder Bay, Ont. — the first of its type in Canada. In convincing donors to donate plasma, the new centre had to overcome some lingering public concern about the safety of the blood-collection system.

En bref

ÉTANT DONNÉ QUE LE CANADA n'a pas atteint l'autosuffisance en matière de produits sanguins, un centre de collecte de plasma a ouvert ses portes à Thunder Bay (Ont.) — le premier du genre au Canada. Dans sa campagne visant à attirer des donneurs de plasma, le nouveau centre a dû surmonter l'inquiétude persistante que le public manifestait au sujet de la sécurité du système de collecte du sang.

Self-sufficiency, the Holy Grail of the Canadian blood-supply system, is a step closer to fruition following accreditation of the nation's first dedicated plasma-collection centre by the US Food and Drug Administration.

Last May the Thunder Bay Plasma Collection Centre in northwestern Ontario received the green light to begin shipping plasma to the US for final processing. Organizers say that capped a year of success for Canada's first dedicated plasma-collection centre, during which it collected about 2000 litres of plasma from nearly 1000 donors. Eventually it hopes to have 4000 regular donors. The centre is currently operated by the Red Cross but control is expected to pass to the country's new blood organization; a new Canadian Blood Agency is to assume the role of the Red Cross by next September.

"Thunder Bay is known for its community spirit and sense of dedication," said Karen Chesterman, a former manager of the plant and longtime resident of this city of 140 000 people. "That was recognized in the decision to locate the plant here. This is quite a feather in the city's cap, especially since this is the first centre of its kind in Canada and will be the model for all others."

At the moment the collection centre's biggest job is to convince people to come through the door. One of the most important target groups is professionals, particularly physicians. "To be honest, doctors are not major blood donors," said Chesterman, "because they are very busy people. But we would certainly appreciate their help in getting the word out to patients and in donating themselves."

The plant was born during a difficult time for the blood industry because it was developed and launched as Justice Horace Krever was gathering information for his report on the safety of Canada's blood-collection system, which was released in November.

Sharon Giesinger, the current acting manager, says Krever's damning report appears to have had little impact on the Thunder Bay centre, and in fact it actually endorsed the centre's work.

"We haven't noticed any effect at all," she said of the controversy that has dogged the blood system. "We thought there might be some, but no one has said anything and our collections continue to rise. They're not as high as we would like them to be, but that has nothing to do with the Krever report."



Giesinger does admit that the inquiry, and the events surrounding it, have made her job more difficult. However, she added that everyone has learned to live with it. "It's been around so long that it's kind of like a thorn in your foot — after a while, you forget it's there."

"Plasma donors," she added, "are a special kind of people."

The need for larger collections is being driven by rapidly increasing demand for plasma and plasma products. By collecting plasma directly instead of extracting it from whole blood, donors at the Thunder Bay centre are able to give twice as much and are able to donate more times each year.

The procedure, called plasmapheresis, takes about 45 minutes. Donors are connected to 1 of 20 machines at the centre — each is worth \$50 000 — that automatically draws and centrifuges the blood and returns red blood cells to the donor. "Come take your red blood cells for a spin — that's one of our slogans," jokes Scott Ferris, a donor recruiter.

He said the Thunder Bay centre is on target in terms of donor numbers and plasma production. Still, because controversy surrounding tainted blood continues to swirl, the job of filling the clinic's 20 beds is not easy. However, Ferris thinks the atmosphere has been improving. "People are coming back. From what I can tell there has been a 180-degree shift in terms of the public focus. People do not seem so concerned about the safety issue anymore — they are more concerned about whether the blood supply will be there for them."

According to a recent *CMAJ* supplement (Expert Working Group. Guidelines for red blood cell and plasma transfusion for adults and children. *Can Med Assoc J* 1997;156:S1[11]) the odds of becoming infected with

HIV following a blood donation are now 1 in 1 million. Chances of contracting other viral infections such as hepatitis B range from 1 in 60 000 to 1 in 1 million.

"It's safe, extremely safe," said Ferris, who thinks physicians must inform patients that they have a "much better chance" of being involved in an automobile accident than of receiving an infectious blood product. "Last night there were probably 5 fender-benders in Thunder Bay alone . . . [but] there was not a single problem with the blood supply in Canada."

In Thunder Bay, plasma donations are made by appointment. First-time donors face an initial 2.5 hour processing session during which a medical history is taken and a complete

checkup is done. On subsequent visits there is a briefer screening to check for any changes in the donor's lifestyle or health.

Ferris said the World Health Organization recognizes that creation of a voluntary-donor base is the safest way to collect blood. An alternative method — paying for donations — is common in the US. "I saw the [American] system at work recently and I was disgusted — I couldn't believe some of the things I saw. Canadians understand that we must not go this route."

Unfortunately, Canada has long held the distinction of being one of the few developed countries that must purchase blood products abroad. The Red Cross currently collects about 200 000 litres of plasma annually, but 400 000 are needed and demand is growing.

The shortfall is covered by products purchased in the US, but the costs of dependence on a foreign source are measured in more than dollar terms. "During the Gulf War there was a definite shortage of blood products in Canada, partly because the Americans who supply our needs were also experiencing a shortage," Chesterman recalled. "In times of shortages they cut back [on exports], and we suffer."

To address this issue, the Red Cross has plans to develop 5 to 7 new permanent collection centres, with Thunder Bay's site being the first. The Canadian plants are modelled on the Bayer Corporation's collection facilities in the US. American experience indicates that areas with populations of about 100 000 people and no other permanent blood-donor clinics are the best locations for plasma plants.

It appears that Thunder Bay fits this bill well. ?



A Thunder Bay donor: collecting plasma is a 45-minute procedure

Blood fractionation produces slew of products

The fractionation process turns blood into many different products, including albumin, factor VIII, immune globulin and immune human serum globulin. The plasma products that are currently purchased outside Canada include factor IX, globulin used to treat specific infections and antithrombin III.