



Customer Letter #2005-18

Planned Measures to Protect the Blood Supply from West Nile Virus (WNV) - 2005 Season

2005-05-17

Dear Colleague:

West Nile season is approaching once again and this letter is to inform you about enhanced measures Canadian Blood Services (CBS) has put in place to further protect the safety of the blood supply during the 2005 season.

Summary

For the summer of 2005, Canadian Blood Services will again use single-unit testing (SUT) to enhance the sensitivity of the West Nile Virus nucleic acid test. Minipool testing (6 samples/pool) is used throughout the year.

- In the summer of 2005, a 'trigger' will be used to initiate SUT.

SUT will be initiated in a health region when a presumptive positive blood donor is detected using minipool testing,

OR

The prevalence of recent confirmed human cases in the preceding two weeks exceeds 1/1,000 population in rural areas, or 1/2,500 in urban areas.

- SUT will cease in a health region when there have been no positive donors for two weeks or the occurrence of WNV cases in the population falls below the aforementioned population triggers.
- There has been no stock-piling of plasma for the 2005 season.
- It is important that physicians investigate possible cases of transfusion transmission of WNV and also report to CBS the names of patients with possible WNV infection who have recently donated blood.

Background Information on West Nile and Blood Donor Screening

Both Canada and the U.S continue to screen all blood donors using investigational nucleic acid technology (NAT) assays which detect the presence of West Nile viral RNA. As most individuals are asymptomatic during the early phase, or in fact throughout their infection, these tests are essential in screening blood donors to detect infection prior to the production of antibody. Following implementation of routine donor screening for WNV by CBS in July 2003, 14 presumptive positive donors were picked up by the new NAT test during that year. A total of 1,355 cases of laboratory-confirmed West Nile infection were reported to Health Canada from across the country in 2003.

During the 2004 season, only 25 cases of laboratory confirmed WNV infection were reported to Health Canada from Ontario, Manitoba, Saskatchewan and Alberta. Of these 3 were travel related. In Canada, no WNV presumptive positive blood donors were detected either by CBS or Héma-Québec in 2004 and there have been no reported cases of transfusion transmission of West Nile in Canada since screening began in 2003. In the U.S., 2470 cases of West Nile infection were reported to the Centres for Disease Control, with most of the activity in Arizona, California, Colorado and Texas. In the U.S during 2004, 199 presumptive positive blood donors were detected (reported as of Jan. 1, 2005) and 6 confirmed cases of transfusion transmission occurred.

Although it has proven difficult to predict where WNV activity will occur from season to season, the westward spread of the virus, and increased WNV presence in northern California over the late summer and fall of 2004 suggest that British Columbia may see its first cases of West Nile infection during the 2005 season. However cases are also expected to be seen in areas with previously established WNV activity. As always, weather and environmental conditions, as well as mosquito control and abatement measures will continue to impact on regional activity of WNV.

Testing donor samples in mini-pools of six is a highly sensitive way to detect even small amounts of WNV RNA, but the use of single unit testing (SUT) or individual donor testing has been found to enhance that sensitivity, particularly for low-titre, early window period infections. Single unit testing of large numbers of blood donors is very labour and resource intensive. SUT of 10% of all donors requires a 50% increase in laboratory capacity. To ensure that resources are used effectively in protecting the blood supply, SUT is used only during West Nile season, targeting areas where there is West Nile activity.

During the 2004 season, both Héma-Québec and CBS began SUT on a planned start date of August 2. Only CBS Donor clinics in areas of West Nile activity (determined by public health surveillance information) received SUT.

West Nile Virus Testing for the 2005 Season

For the 2005 season, CBS will use a 'trigger' (similar to U.S. blood suppliers) to initiate SUT in a given health region. The detection of one presumptive positive blood donor by mini-pool testing or a population prevalence of greater than 1:1,000 (or greater than 1:2,500 in urban areas) confirmed human cases occurring locally over the preceding 2 weeks will trigger SUT for that health region. Clinics in neighbouring health regions may receive SUT if this is

deemed to be medically appropriate and laboratory resources are available. SUT will be discontinued when no new presumptive positive blood donors are reported in that health region over two consecutive weeks or the prevalence of new confirmed human cases likely acquired locally over the preceding two weeks falls below 1:1,000 population (or below 1:2,500 population in urban areas). CBS will maintain a flexible, responsive system of monitoring and responding to WNV activity across the country by close interaction with public health officers.

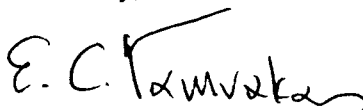
In the event of a large or widespread WNV outbreak, the triggers for implementing or discontinuing SUT in a health region may have to be modified because the system's total capacity for SUT is limited and CBS must secure an adequate blood supply. In such a situation of a widespread outbreak, CBS will also consider additional measures, such as suspending collections in areas of intense human activity while increasing collections in areas of no or less activity.

Neither Canadian nor U.S. blood operators have stock-piled fresh frozen plasma for the 2005 season.

Canadian Blood Services reminds physicians of the need to ensure that their patients are aware of the risk of WNV transmission through transfusion. During the WNV season this should be part of the informed consent for transfusion. Transfusion recipients who present with signs and symptoms of WNV infection in the summer and fall should be investigated for the possibility of transfusion transmission of WNV and reported to CBS. Physicians should routinely question patients who may have WNV infection about recent blood donation. Patients who have donated blood in the last 56 days should be reported to CBS so that in-date components can be quarantined.

For further information contact your CBS Regional Medical Director (see **Attachment 1**)

Sincerely,



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Canadian Blood Services

Useful Websites:

Canadian Blood Services	www.bloodservices.ca
Centers for Disease Control	www.cdc.gov
Health Canada	www.hc-sc.gc.ca

Attachment 1

**CANADIAN BLOOD SERVICES
MEDICAL DIRECTORS
LISTED BY PROVINCE WEST TO EAST**

Centre	Contact	Phone	Email
BC & Yukon	Medical Consultant Dr. Jerry Growe	604-707-3449	Gershon.growe@bloodservices.ca
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Winnipeg	Medical Director Dr. Debra Lane	204-789-1079	Debra.lane@bloodservices.ca
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London	Medical Director Dr. Robert Barr	519-690-3944	Bob.barr@bloodservices.ca
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