



Canadian  
Blood  
Services

BLOOD  
PLASMA  
STEM CELLS  
ORGANS  
& TISSUES

1800 Alta Vista Drive  
Ottawa ON  
K1G 4J5  
Canada

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**INFORMATION ONLY**

**RHD Genotyping Testing Availability**

Customer Letter # 2025-23

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2025-06-27

Dear Colleagues:

Canadian Blood Services (CBS) was informed by Werfen (Immucor) that they are unable to supply the RHD Molecular BeadChip test kits, which are used for patient *RHD* genotyping, due to reagent supply chain issues. This testing is performed by CBS at the Edmonton Diagnostic Services Laboratory.

The expected duration of this shortage is unknown. Canadian Blood Services is actively monitoring the situation with the manufacturer and assessing alternative testing options for *RHD* genotyping. Testing for extended red cell antigen genotyping (RHCE, K, Jk, Fy etc.) is not impacted.

Effective immediately Canadian Blood Services will be triaging all samples received for *RHD* genotyping. This includes samples that have already been received but not yet tested. Hospitals may be contacted for additional clinical information prior to testing.

As selective and judicious use of *RHD* genotyping is required, CBS will prioritize testing of samples from hemoglobinopathy patients for whom results are expected to immediately influence transfusion decisions. Based on historical CBS data, approximately 6% of serologically RhD positive hemoglobinopathy patients are switched to an RhD negative transfusion strategy due to the presence of partial *RHD* variants posing a risk for anti-D alloimmunization. Consideration will be given to the *RHCE* haplotype when triaging samples for testing. The presence of *RHCE*\*Ce and *RHCE*\*cE alleles in RhD positive hemoglobinopathy patients are associated with a low probability of an *RHD* variant on the BeadChip assay and these patients can usually be managed as RhD positive.

Samples that do not require urgent *RHD* genotyping but meet accepted indications will be stored for testing when it becomes available. When requesting *RHD* genotyping for patients (including samples referred for extended red cell antigen genotyping in hemoglobinopathy patients), hospital customers should:

- 1) Clearly indicate on the genotyping requisition if urgent *RHD* genotyping is required and indication for testing to make decisions regarding imminent transfusion support. **If this is not indicated, it will be assumed that testing is not urgently required.**



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- 2) Notify the CBS *RHD* genotyping laboratory if a sample has been sent and results have not been received but are required urgently. Contact information for CBS *RHD* genotyping laboratory is provided below.
- 3) Consider not sending samples for baseline *RHD* genotyping if transfusion is not required.

Samples from prenatal patients with weak/variable RhD phenotype will be genotyped as test availability allows. Hospitals should continue to send these samples. To assist with triaging, please provide the estimated delivery date on the requisition. Results may be delayed. In the absence of *RHD* genotyping results, current guidelines recommend that prenatal patients with weak/variable serologic RhD typing be managed as RhD negative and considered eligible for Rh immune globulin.

Additional information will be posted shortly on the blood.ca website alongside the *RHD* genotyping requisition.

For questions about *RHD* genotyping and the need for prioritization of testing, please contact the Canadian Blood Services Diagnostic Services Laboratory in Edmonton at 780-431-8765 or via email at [genotyping.edm@blood.ca](mailto:genotyping.edm@blood.ca)

Please share a copy of this customer letter with healthcare professionals at your hospital who might be interested in this information.

This customer letter can also be viewed at [www.blood.ca](http://www.blood.ca) in the “Hospital Services” section. If you have questions about this letter, or if you require it in an accessible format, you may also contact your local hospital liaison specialist.

Sincerely,

Elaine Leung, MD, FRCPC  
Medical Director, Laboratory Services  
Medical Laboratory & Stem Cell Services