



**Date:** April 6, 2020  
**To:** Edmonton and North Zones  
**From:** Genetics and Genomics, Alberta Precision Laboratories (APL)  
**Re:** Molecular genetic testing after blood transfusion

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**Key Message:**

- Effective immediately, buccal samples are no longer required when ordering molecular genetic testing after a transfusion with:
  - platelets
  - irradiated packed red blood cells
  - non-irradiated packed red blood cells
- This expands on a previous lab bulletin (dated September 23, 2019) which referred only to transfusion with irradiated packed red blood cells.

**Why this is important:**

- An internal quality audit determined that the risk of contamination with donor DNA is negligible if a patient has been transfused with irradiated or non-irradiated packed red blood cells. Based on sample handling and processing of platelets, the risk of contamination with donor DNA should also be negligible.
- A buccal sample is no longer required after transfusion with one of these blood products and testing can be performed on a peripheral blood sample.
- If the patient has been transfused with a blood product other than those listed above, a buccal sample is required alongside the peripheral blood to rule out donor contamination.

**Action Required:**

- Peripheral blood samples may be collected for genetic testing following transfusion with platelets, irradiated or non-irradiated packed red blood cell transfusion. A buccal sample is not required.

**Inquiries and feedback may be directed to:**

Genetic Counsellors, Molecular Diagnostic Laboratory, North 780-407-1015

**This bulletin has been reviewed and approved by:**

Dr. Dennis Bulman, Medical/Scientific Director, Genetics & Genomics, Alberta Precision Laboratories  
Dr. Carolyn O'Hara, Chief Medical Laboratory Officer (Interim), Alberta Precision Laboratories