



Date: December 16, 2019
To: All Zones
From: Genetics & Genomics, Cytogenetics Laboratories North and South
Re: Chromosomal Microarray and RAD Testing on Cord Blood Samples

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Message:

- **Chromosomal Microarray (CMA) and rapid aneuploidy detection (RAD) testing is available on CORD BLOOD specimen only if accompanied by a maternal peripheral blood sample.**

Why this is important:

- Please note that the preferred sample for CMA and RAD testing is peripheral blood. Peripheral blood samples are associated with the highest quality results.
- CMA and RAD testing are available on a cord blood sample, however, due to potential contamination with maternal blood, a maternal peripheral blood sample (15 ml EDTA) must also be collected. CMA or RAD testing will proceed only on specimens with no detectable maternal cell contamination. CMA/RAD turnaround time will start once maternal cell contamination testing is completed. Due to the additional maternal cell contamination testing, the turn-around-time for testing on cord blood will be 2-3 business days longer than the turn-around-time for testing on peripheral blood.

Action Required:

- If ordering CMA/RAD on cord blood, please have a peripheral blood specimen (15 ml EDTA) collected from the mother. The maternal blood specimen should be submitted with a Chromosomal Microarray Requisition with “maternal cell contamination” as the test requested. The maternal specimen may be collected at the same time as the cord blood or in advance.
- Requisitions and other information can be found on the Genetics and Genomics webpage at: <https://www.albertahealthservices.ca/lab/Page8667.aspx>

Inquiries and feedback may be directed to:

- Genetic Counsellors: 780-407-1015 (Edmonton)
403-955-7397 (Calgary)

This bulletin has been reviewed and approved by:

Dr. Dennis Bulman, Medical/Scientific Director, Genetics and Genomics, APL

Dr. Carolyn O'Hara, Chief Medical Laboratory Officer (Interim), APL