

**Date:** March 21, 2014

**To:** All Zones

**From:** AHS Laboratory Services – Genetic Laboratory Services  
Molecular Diagnostic Laboratory and Cytogenetics Laboratory - University of Alberta  
Hospital (UAH)

**Re:** **New Algorithm for Prenatal Samples Collected in Northern Alberta**

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## PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

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### Key Messages:

- **Effective March 31, 2014**, the testing process for prenatal samples collected in Northern Alberta will be modified in accordance with the SOGC Guidelines (Use of a DNA Method, QF-PCR, in the Prenatal Diagnosis of Fetal Aneuploidies, September 2011)
- Rapid aneuploidy detection (RAD) will automatically be performed on all prenatal samples received in the Edmonton Cytogenetic Laboratory. This test will detect the most common aneuploidies of chromosomes 13, 18, 21 and X and Y.
- A karyotype will **only** be performed for the following indications:
  - Fetus with structural ultrasound abnormalities, a nuchal translucency of 3mm or greater, or 2 or more soft ultrasound markers
  - Fetus at risk for an unbalanced chromosomal rearrangement
  - Abnormal or nil RAD result
- Both RAD and chromosome analysis will be performed on all chorionic villus sampling specimens
- **The requisition is critically important.** The clinical information on the requisition form determines the type of prenatal testing the patient receives. **The clinic is responsible for ensuring all relevant information is clearly written on the requisition such as family history, maternal serum screening results and ultrasound findings.**

### Action Required:

- Refer to the AHS Edmonton Zone test directory for requisition, collection and handling information at: <http://www.albertahealthservices.ca/3217.asp>

### Inquiries and feedback may be directed to:

Dr. Sherry Taylor, Clinical Site Lead, Edmonton Genetic Laboratory Services. Ph: 780-407-3145, email: [sherry.taylor@albertahealthservices.ca](mailto:sherry.taylor@albertahealthservices.ca)

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

**Dr. Martin Somerville, Medical / Scientific Director, Genetic Laboratory Services**  
**Dr. James Wesenberg, AHS Provincial Medical / Scientific Director, Laboratory Services**