

2015-06-30

Maternal-Fetal Medicine Clinics &
EFW Radiology

Attn: Maternal-Fetal Medicine Clinic Staff and EFW Radiology Staff, Edmonton and Calgary

Re: Fetal Genotyping on Maternal Plasma and Amniotic Fluid Updates

Canadian Blood Services has been referring samples for fetal genotyping on maternal plasma to the International Blood Group Reference Laboratory (IBGRL) in Bristol, UK and fetal genotyping on amniotic fluid to the Blood Center of Wisconsin in Milwaukee.

Included in this package are the following revised documents:

- IBGRL Requisition (destroy old copies of the requisition and start using immediately) <http://ibgri.blood.co.uk/ReferenceServices/RefSerSendSamples.htm>
- Blood Center of Wisconsin Molecular Diagnostic Laboratory requisition www.bcw.edu
- CBS requisition LL4527 'Perinatal Follow-Up Testing for Red Blood Cell Serology'
- Fetal Genotyping on Maternal Blood Testing Criteria and Collection Instructions
- Fetal Genotyping of Amniotic Fluid Testing Criteria and Collection Instructions
- Consent for Release of Neonatal Test Results (must be completed and accompany IBGRL requisition).

All documents can also be found on the Canadian Blood Services web site at <https://www.blood.ca/en/hospitals/ab-nwt-center/reference-services>.

Neonatal Information Survey and Consent for Information Release:

The International Blood Group Reference Laboratory requests that we provide follow-up information on neonatal blood group antigens for those pregnancies where fetal genotyping from a maternal blood sample has been performed. Fetal Genotyping is not a licensed procedure and the results must be considered in the context of the clinical findings. An assessment of fetal red cell phenotype is a critical quality assurance step for the laboratory and ensuring accuracy of results depends on ongoing monitoring of the genotype/phenotype correlation.

In order to gather this vital quality assurance information we will require information on the planned hospital for delivery and the primary care physician as well as maternal consent to seek information on neonatal red cell antigen status and DAT testing. This testing will not require blood collection as the tests are routinely performed on cord blood samples. Using the provided survey information, we will contact the hospital of delivery and or the primary care provider at or around the time of expected delivery to ascertain the required blood group and DAT results. Neonatal testing results are essential for validating the genotyping technology in the perinatal setting, and will provide valuable feedback to Canadian Blood Services and the Bristol Laboratory. The Neonatal Information Survey and Consent for Information Release must be



completed. Fetal genotyping on maternal plasma is contingent on provision of survey information and consent at the time the maternal specimen is submitted to Canadian Blood Services.

Collection Instructions:

It is important that you notify the Perinatal Laboratory at Canadian Blood Services in Edmonton prior to samples being submitted for fetal genotyping so that CBS staff can prepare to ship the samples to the reference laboratory without delay. E-mail perinatal@blood.ca or call 780-431-8759 and provide patient's name and PHN.

Follow the Testing Criteria and Collection Instructions. Note that all information including maternal consent for release of neonatal cord testing results, hospital of delivery and primary care provider must be completed prior to send out of maternal samples. As testing of maternal samples is time-sensitive, failure to provide the required documentation may result in the inability to complete testing.

Questions regarding referring samples for fetal genotyping should be directed to Gerri Barr, Diagnostic Services Perinatal Supervisor at 780-431-8724 or by e-mail at perinatal@blood.ca. Medical inquiries can be directed to either Dr. Judith Hannon judy.hannon@blood.ca (780-431-8714) or Dr. Gwen Clarke gwen.clarke@blood.ca (780-731-8738).

Yours sincerely,

Judith Hannon MD FRCPC
Medical Director, Canadian Blood Services Edmonton

Enclosures: