

## Fetal Genotyping on MATERNAL PLASMA Maternal Fetal Medicine Instructions

### Maternal Fetal Medicine Clinic Staff:

#### 1. Testing Criteria for Fetal Genotyping

Fetal genotyping will be provided in cases where:

- The antibody is anti-D, anti-C, anti-c, anti-E, at a critical titre level, and the mother is at **16 weeks gestation** or later, OR
- The antibody is anti-K, regardless of titre level, and the mother is at **20-28 weeks gestation** or later, OR
- There has been a previous fetus/newborn affected by hemolytic disease of the fetus/newborn (HDFN), AND
- The father is heterozygous for the corresponding antigen (or unknown).

#### 2. Notify Canadian Blood Services Edmonton, of scheduled sample collection with 1-2 days advanced notice

- Prior to sample collection, notify perinatal supervisor, by phone 780-431-8725 or email [perinatal@blood.ca](mailto:perinatal@blood.ca) and provide the following details:
  - Patient's full name and PHN
  - Date of sample collection
  - Sample collection location

#### 3. Sample Requirements

- Mother: 4 X 6 mL EDTA samples
- Father: 1 X 6 mL EDTA sample, if testing for RhD (maternal anti-D is present)

#### 4. Complete the International Blood Group Reference Laboratory requisition

- Required for mother's sample only

#### 5. Complete Fetal Genotyping from Maternal Plasma requisition.

- Always required for mother's sample. Required for father sample if testing for RhD (maternal anti-D is present).
- - For mother
    - Mother –for specimen type
  - For father, if testing for RhD (maternal anti-D is present)
    - Father, for specimen type

#### 6. Complete Consent for Release of Neonatal Test Results to Canadian Blood Services

- Attach to International Blood Group Reference Laboratory requisition
- **Samples not accompanied by a signed consent will not be processed**

#### 7. Provide mother with:

- Completed requisitions
  - International Blood Group Reference Laboratory
  - Canadian Blood Services (CBS) Fetal Genotyping from Maternal Plasma
- Completed Consent for Release of Neonatal Test Results to Canadian Blood Services (attached to requisition)
- Fetal Genotyping on Maternal Plasma Collection Site Instructions

#### 8. Send parent(s) to laboratory collection site

- Collection can occur Monday to Wednesday only
- Notify CBS ASAP if predetermined sample collection date or location changes