Canadian Blood Services
BLOOD
PLASMA
STEM CELLS
ORGANS
& TISSUES

Edmonton, AB
Diagnostic Services

Recommended Testing Perinatal Guidelines

CLINICAL SCENARIO	SAMPLE SUBMISSION TIMELINES
First Pregnancy ABO and Rh(D) typing Red Cell Antibody Screen	Initial visit and at 26-28 weeks gestation
Rh positive – previous report on file – antibody screen negative ABO and Rh(D) typing Red Cell Antibody Screen	Initial visit *
Rh negative – antibody screen negative ABO and Rh(D) typing Red Cell Antibody Screen	Initial visit and at 26-28 weeks gestation (collect prior to RhIG injection)
Clinically significant antibodies detected: non-critical result ABO and Rh(D) typing Red Cell Antibody identification / exclusions Titration	Initial visit and monthly during 1st and 2nd trimester Every two weeks during 3rd trimester Frequency of sample request may be individualized as indicated on the result report. Paternal sample requested for ABO/Rh(D) and phenotype
Clinically significant antibodies with critical titres ABO and Rh(D) typing Red Cell Antibody identification / exclusions	Referral to MFM is strongly recommended when antibody has reached a critical value or is rapidly rising. Patients with clinically significant antibodies and history of HDFN should be referred to MFM regardless of titre value. A clinically significant antibody is not routinely titred after a critical value has been reached (typically ≥16). The detection of anti-K is a critical result regardless of titre strength and titration is not routinely performed. Note: Antibody titration will be performed if requested by the health care provider.
Father ABO and Rh(D) typing Red Cell Phenotyping	When the mother has a clinically significant antibody the father's specimen is requested by Canadian Blood Services for phenotyping to predict the risk of hemolytic disease of the fetus/newborn (HDFN).

*Additional samples may be submitted for patients at increased risk of allo-immunization (previous transfusion, fetal trauma or procedure, IV drug use, etc.)