Lab Dept: Transfusion Services

Test Name: RBC PHENOTYPING/Rh PHENOTYPING

**General Information**

**Lab Order Codes:**
- MPHEN – Minneapolis (RBC)
- MRHPH – Minneapolis (Rh)
- APHEN – St Paul (RBC)
- ARHPH – St. Paul (Rh)

**Synonyms:**
- Antigen type, Red cells, Phenotype; Rh phenotyping

**CPT Codes:**
- 86905 - RBC antigens, other than ABO or Rh (D) each
- 86906 – Rh phenotyping, complete

**Test Includes:**
- Testing for common antigens of the Rh, Kell, MNS, Duffy, Kidd, P and Lewis blood group systems.

**Logistics**

**Test Indications:**
- Determine likelihood of Rh positive child in genetic counseling,
- determine likelihood of hemolytic disease of the newborn in cases of maternal antibody, identify compatible blood for recipients with atypical antibodies, identify phenotypically matched blood for recipients likely to receive multiple red cell transfusions to prevent the production of atypical antibodies.

**Lab Testing Sections:**
- Transfusion Service - Sendouts

**Referred to:**
- Memorial Blood Center - Minneapolis
- American Red Cross/North Central Blood Services (NCBS) – St Paul

**Phone Numbers:**
- Minneapolis: 612-813-6824
- Saint Paul: 651-220-6558

**Test Availability:**
- Monday - Friday

**Turnaround Time:**
- 1 - 2 days
**Special Instructions:** Provide Transfusion Services with patient's transfusion history outside of Children's system.

### Specimen

**Specimen Type:** Whole blood  
**Container:** Lavender top (EDTA) tube and Red top tube *SST tubes are not acceptable*.  
**Draw Volume:** 3 – 6 mL blood in a Lavender top (EDTA) tube and 3 mL blood in a Red top tube  
**Collection:** All specimens submitted to the Transfusion Service must be appropriately labeled at the bedside with the time and date of collection and the signature of the individual collecting the specimen. A completed order, either through the HIS or general requisition must accompany each specimen. It is not always necessary to collect a new sample prior to the provision of blood for patients. Consult with the Transfusion Service prior to collecting additional samples if the patient status is unknown.

**Special Processing:** Lab Staff: **Do Not** spin. Complete Blood Center test requisition form.

**Patient Preparation:** Refer to [Collection of Patient Specimens](#) for full details. The patient must be positively identified when the specimen is collected. The label on the blood specimen must correspond with the identification on the patient's Medical Record wrist or ankle band (or ED ID) and on the physician's/practitioner's orders. The specimen must be timed, dated and signed by the phlebotomist at the bedside.

**Sample Rejection:** Gross hemolysis, sample placed in a serum separator tube, specimen not properly labeled.

### Interpretive

**Reference Range:** Frequencies of phenotypes vary significantly in different ethnic groups.  
**Limitations:** N/A  
**Methodology:** Antisera to known RBC antigens. Methodology dependent on antigen group and Reference Lab.  
**Contraindications:** Recent transfusion within the past 3 months.  
**References:** N/A