**Purpose**

This procedure provides instructions for how to perform type confirmation for ABO/Rh tube testing on all red blood cell and granulocyte components received by the Harborview Medical Center Transfusion Service Laboratory. This type confirmation is required before these components can be placed into available inventory.

**Procedure:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Step** | **Action** | | | | | **Related Documents** | |
| 1 | Prepare computer entry field or downtime worksheet for unit confirmation typing.   * Note ABO/Rh type printed on component label. * Select antisera necessary for unit type confirmation as follows: * Only Rh Negative units are retyped for D * All O units are typed with Anti-A,B only * All other groups are typed with Anti-A and Anti-B * Label tubes, per established procedure. * Add reagents per established procedure and reagent package insert. * Perform a visual check to ensure that the reagent volume is correct. | | | | | | Manual Bench Testing Result Form  ABO/D Typing by Tube Method.  Labeling Tubes for Manual Bench Testing  Reagent Manufacturer Package insert |
| 2 | Prepare a 3% to 5% cell suspension of component red cells per established procedure.   * Add 3% to 5% suspension of the donor red cells to tubes containing reagent antisera (anti-A, anti-B, anti-A,B and/or anti-D). * Mix all tubes. | | | | | | Preparation of 3% to 5% Red Cell Suspension |
| 3 | Centrifuge for the posted optimal time in a calibrated serologic centrifuge | | | | | |  |
| 4 | Remove the tubes from the centrifuge.   * Check that the component ID on each tube is comparable with the last 3 digits of the component number on the corresponding product bag and the computer entry screen or downtime worksheet. | | | | | |  |
| 5 | Gently resuspend the cell button.   * Examine macroscopically for hemolysis and agglutination per established procedure. * Grade and record the results in SQ or on worksheet. | | | | | | Reading and Grading Tube Hemagglutination  Blood Product Testing in Sunquest |
| 6 | Use the following table to interpret the results: | | | | | | |
| **IF the forward grouping reaction of donor cells with** | | | | **AND the reaction**  **of donor cells with** | **Then interpret the ABO/Rh type as** | |
| **Anti-A is** | **Anti-B is** | **Anti-A,B is** | | **Anti-D is** |
| NT | NT | **0** | | NT | O, Rh-positive | |
| NT | NT | **0** | | **0** | O, Rh-negative | |
| **≥ 3** | **0** | NT | | NT | A, Rh-positive | |
| **≥ 3** | **0** | NT | | **0** | A, Rh-negative | |
| **0** | **≥ 3** | NT | | NT | B, Rh-positive | |
| **0** | **≥ 3** | NT | | **0** | B, Rh-negative | |
| **≥ 3** | **≥ 3** | NT | | NT | AB, Rh-positive | |
| **≥ 3** | **≥ 3** | NT | | **0** | AB, Rh-negative | |
| * + ***Note:*** *NT = Not Tested* | | | | | | |
| 7 | Evaluate the test results. | | | | | | ABO Discrepancy Resolution Process  Weak D Test by Tube Procedure |
| **If** | | | **Then** | | |
| There are any discrepancies in results when compared to the table in Step 6 | | | Resolve the discrepancy, per established procedure, and Proceed to Step 8 once the discrepancy is resolved. | | |
| 8 | Record the interpretation in the computer or on the worksheet | | | | | |  |
| 9 | Resolve any discrepancy between result and unit label before resulting or placing product into available inventory | | | | | |  |

**References:**

Standards for Blood Banks and Transfusion Services, Current Edition, American Association of Blood Banks. AABB Press, Bethesda, MD:

Current manufacturer’s package insert instructions.