**Purpose**: To provide a technique to resolve testing discrepancies and/or unexpected reactions due to rouleaux formation. Patient plasma with altered protein proportions, abnormal proteins or high concentrations of fibrin may cause rouleaux formation that resembles true agglutination.

**Procedure:**

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| --- | --- | --- | --- |
| **Step** | **Action** | | **Related Documents Title** |
| **1.** | * Confirm sample for acceptability per established procedures. * Confirm presence of rouleaux microscopically. | | * ABO Discrepancy Resolution * Sample Acceptance Evaluation |
| **2.** | * Repeat manual tube method if not already done. | | * ABO/D Typing by Tube Method * Crossmatch by Immediate Spin Tube Method |
| **3.** | * If discrepancy is not resolved, proceed to step 4. | |  |
| **4.** | * Centrifuge the reaction tubes containing patient plasma. Do not resuspend the cells. | |  |
| **5.** | * Use a disposable transfer pipet to draw the supernatant plasma and discard. | |  |
| **6.** | * Add two drops of **0.85%** saline to each tube. * Spin reaction tube(s) | |  |
| **7.** | * Gently resuspend and observe macroscopically for agglutination. | |  |
| **8.** | * Grade and record results. | | * Reading and Grading Tube Hemagglutination Reactions * ABO/D Discrepancy Worksheet |
| **9.** | **Interpret results as follows:** | | * ABO Discrepancy Resolution |
| * No agglutination | * Rouleaux formation |
| * Agglutination | * True agglutination not due to rouleaux |

|  |  |  |
| --- | --- | --- |
| **Step** | **Action** | **Related Documents Title** |
| **10.** | * **If discrepancy resolved**:   + Result test   + Update BAD file with “rouleaux” and “saline replacement technique”. | Blood Order Processing Test Result Guide |
| **11.** | * **If discrepancy is NOT resolved:**   + Perform additional problem investigation   + Issue universal donor blood components until discrepancy is resolved. | * ABO Discrepancy Resolution * Identification of Cold-Reacting Antibodies |

**References:**

AABB Technical Manual, Current Edition.