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| **Resolving Rh (D) Typing Discrepancies** |
| **Purpose** | This procedure provides instructions for how to resolve Rh typing discrepancy. [TS 4.17 Rh typing](http://khan.childrensmn.org/Manuals/Lab/SOP/TS/PatTest/202233.pdf) |
| **Policy Statements** | * D typing discrepancies shall be investigated and resolved through clerical and serologic investigations.
* Rh negative red cells shall be selected for transfusion until discrepancy is resolved.
* AABB recommends RBC genotyping to resolve D variants.
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| **Related****Documents** | [TS 4.17 Rh typing](http://khan.childrensmn.org/Manuals/Lab/SOP/TS/PatTest/202233.pdf) |
| **Sample** | No special preparation of the patient is required prior to specimen collection. Blood should be collected and labeled according to approved policies and procedures  [Collection of Patient Specimens](http://www.childrensmn.org/Manuals/Lab/TransfusionSvc/012709.asp)EDTA or clotted specimen should be tested within 14 days and stored at 2-8°C. |
| **Procedure** |  |
|  | **Step** | Action |
|  | 1 | Recheck suitability of specimen. |
| **If** | **Then** |
| any doubt about identity or the quality of the specimen. | collect a new specimen and repeat testing. |
|  | 2 | Verify reagent selection and repeat quality control if felt reagent is contaminated. |
|  | 3 | Repeat testing on original sample using a new cell suspension.  |
| **If** | **Then** |
| problem is resolved | result patient testing results. |
| problem not resolved | Proceed to step 4  |
|  | 4 | Repeat testing on new specimen. |
| **If**  | **Then** |
| problem is resolved | result patient testing results. |
| problem not resolved | Proceed to step 5 |
|  | 5 | Perform weak D testing if Gel reaction is ≤1+ or mmediate spin reaction with anti-D is weakly positive .1. Review previous testing reaction pattern.
2. Review the patient's diagnosis and transfusion history.
3. Read tubes microscopically looking for mixed field agglutination.
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|  | 6 | Review patient's medical history. |
| **If**  | **Then** |
|  Historic typed as Rh positive and transfused with Rh negative blood within the last three months. | Perform weak D testing |
|  Polyagglutination due to cold agglutinins is suspected | * Maintain patient specimen at 37°C immediately after collection or warm tube at37°C for > 10 minutes.
* Wash cell x 4 with 37°C prior to testing.
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|  | 7 | Forward specimen to reference lab for further testing if discrepancy is not resolved. Provide the following information:* Transfusion history
* Clinical condition
* Medications
* Ethnic background
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| **Interpretation** | Refer to [TS 4.17 Rh typing](http://khan.childrensmn.org/Manuals/Lab/SOP/TS/PatTest/202233.pdf)If the discrepancy cannot be resolved, enter the Rh interpretation into as INCONCLUSIVE RESULT |
| **Result Reporting** | 1. Record the final testing reactions in grids. [TS 5.6 Entering Results for a ABO and Rh typing](http://khan.childrensmn.org/Manuals/Lab/SOP/TS/SpecRR/202251.pdf)
2. Insert test BBC (key ‘) into the **Add Spec. test** box.
3. Result BBCC with a free text comment for special testing.
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| **References** | AABB Technical Manual, current edition |
| **Approval****Workflow** | Transfusion Service/Laboratory Director |
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| **Historical Record** | **Version** | **Written/Revised by:** | **Effective Date:** | **Summary of Revisions** |
| 1 | J. Wenzel | 11/23/2009 | Initial Version |
| 2 | J Wenzel | 4/10/2012 | Removed Reference to BioRad Reagents |
|  | 3 | S. Cassidy | 02/17/2023 | Updated for new reagents. |