

Anti A Titre – [Serum] Analysis

Objective

The objective of this test is to measure the titre of anti-A antibodies present in serum. This test is essential in blood group serology, particularly in transfusion medicine, organ transplantation, and hemolytic disease of the newborn (HDN) evaluations.

Materials and Methods

Materials:

- Patient serum sample
- A-group red blood cells (RBCs) for testing
- Saline and test tubes
- Centrifuge and pipettes
- Anti-human globulin (AHG) reagent (for indirect antiglobulin testing)

Methods:

1. Sample Preparation: Obtain serum from patient blood sample.
2. Serial Dilution: Perform serial dilutions of the serum in saline.
3. Agglutination Testing: Mix each dilution with A-group RBCs and incubate.
4. Observation: Check for agglutination; the highest dilution showing agglutination represents the titre.
5. Interpretation: High titres may indicate immune sensitization or hemolytic disease risk in newborns or transfusion incompatibility.

Results

- Low titre: Typically insignificant, normal immune response
- Moderate to high titre: May indicate alloimmunization, transfusion reaction risk, or hemolytic disease of newborn (HDN)
- Clinical correlation is required for interpretation

Conclusion

Anti-A titre testing in serum is an important tool in immunohematology for evaluating transfusion compatibility, maternal-fetal blood group incompatibility, and immunological responses. Results should be interpreted alongside patient history and other serological findings.