

Orientalional cross test

Antigens of AB0 and Rh systems are of high importance in blood transfusion. Therefore, the **rule of the same blood group in donor and recipient** should be kept.

The **cross test** follows the previously done investigation of the blood groups in both donor and recipient. The cross test evaluates **compatibility of 2 samples of blood** and prevents agglutination and hemolysis not only in different blood groups, but also in corresponding blood groups in case of occurrence of irregular antibodies in the recipient's serum.

The rule is: serum of the recipient must not agglutinate RBC of the donor (i.e. *big cross test*) and RBC of the recipient cannot be agglutinated by serum of the donor (i.e. *small cross test*).

In addition to the cross test (performed in the hematological laboratory), directly at the patient's bed the compatibility between the blood of the recipient and the donor is investigated by diagnostic set for investigation of AB0 system of blood groups. Investigation of the blood compatibility done at the practicals (using drops of full blood) is only orientational.

Material

Slides with pits, pipette, normal saline, sterile injection needle for single use, cottonwool, disinfection solution, microscope.

Methods

Place 1 drop of saline into the middle pit of the slide. Place 1 small drop of blood of 2 students (of the same or different blood group) into left and right pit of the slide. Using corner of other slide mix all three drops. Read the result within 5 min., in case of need use the microscope. Evaluate compatibility or incompatibility of the blood samples.