Blood groups test

Human red blood cells have on the membranes antigens called "agglutiogens" .the plsma of blood contain antibodies called "agglutinins"

ABO Groups

The blood grouping is based on two antigens present on the membrane of the red cells they are "A"&"B" , the antibodies present in plasma are "anti-a" & "anti-b"

There are two methods:

1- slide method(commonly used) **2-tube method**

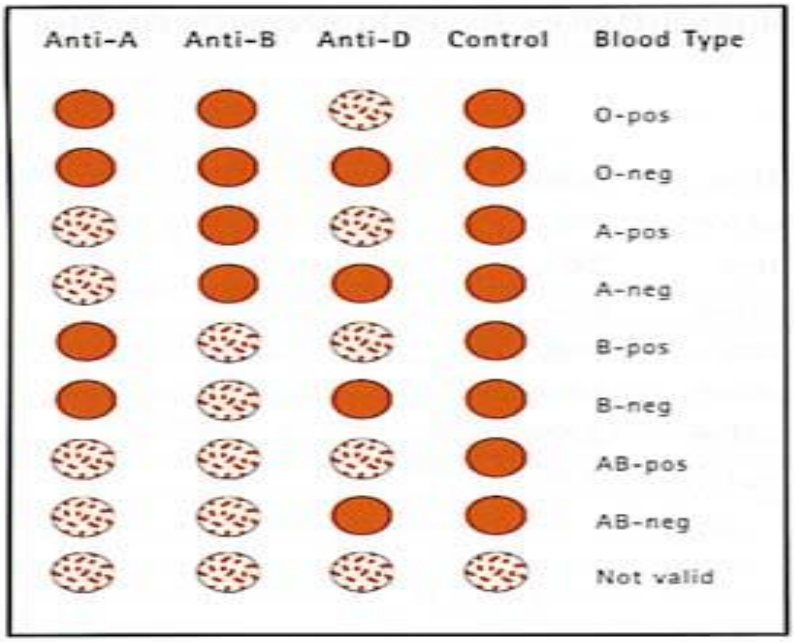
Requirement (slide method)

- **Lancets**
- **Plastic pipette**
- **Alcohol swab**
- **Blood**
- **Blood group test (anti A, anti B , anti D)**

Precautions

- **Perform test at room temperature**

1. **Wash your hands before carrying out the test and again after carrying out the test.**
2. **Wipe a fingertip with the alcohol impregnated tissue provided and allow it to dry.**
3. **Place the lancet against the end of the finger and press the green body against your finger to release the needle.**
4. **. make 3 drop with a 3 to 4 mm (1/8 inch) diameter is seen.on glass slide,.**
5. **Place the anti A with the drop of blood into the first circle. and blood mixture until the coloured dry material has dissolved.**
6. **Repeat this procedure for the other 3 circles, making sure you use a new stick for each circle.**
7. **As soon as you have finished tilting read and record the results immediately. See the table below for how the results are interpreted.**



Rh system (Rhesus blood-group system)

The Rh system are five main antigens that present on the membrane of red blood cells the most common one is antigen-D this group was designated Rh because the blood of the Rhesus monkey was used in the first research .

If the person have antigen –D his blood is Rh+(positive), and if he lack antigen-D his blood is Rh- (negative) and that important in blood transfusion and in a disorder affecting the fetus and neonatal infant "haemolytic disease of the new born"

Antigens on RBCs		
antibodies		**Blood Group**
Serum is contain anti-b	**It is contain A- antigen only**	**Group A**
Serum is contain anti-a	**It is contain B- antigen only**	**Group B**
Non	**It is contain A&B antigen**	**Group AB**
Serum is contain anti- a & anti-b	**When neither A and nor B is present**	**Group O**

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