**CROSS -MATCHING TEST**

**Introduction and principle**

**This is the direct test of compatibility of donor's cells and recipient's serum or plasma.**

**Objectives**

To find if the blood of a donor is compatible with that of the recipient.

***Methods***

1- Slide Test.

2- Tube Test.

***Slide Test***

***Materials and Instruments***

1-Slide .

2- Serum or plasma from recipient (contain antibody).

3- Red blood cell from donor (contain antigen).

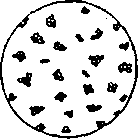
4- Isotonic saline (0.9% NaCl) for dilution.

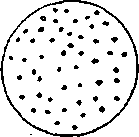
*5-* Applicator sticks.

6- Microscope.

7-WBC pipette

**Reaction between donor's cells and recipient's plasma antibodies**

**** **Incompatible**

 **compatible**

***Procedure***

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**1- Recipient serum or plasma: Draw 1ml of blood from recipient and allow to clot.When the clot retracts, the serum can be pipette off.Or use plasma after centrifugation of whole blood mixed with anticoagulant.**

**2- Donor's red blood cell: Prick the ear or finger of donor. One drop of blood should be placed in 1mL of isotonic saline and mixed Aspirate blood to the 0.5 mark of WBC pipette and dilute to 11 mark with 0.9% NaCl .Mix and blew out the saline in the stem.**

**3- Place one drop of suspension of donor's cell on a microscope slide and over it place one drop of the recipient's serum or plasma. Mix and wait for 10 minutes. Examine under micros**

**4- If the blood is incompatible this will be shown by an agglutination (+) or clumping of red blood cell as shown in the ta**

**5- If the blood is compatible this will be shown by a uniform suspension with cells i.e. no agglutination (-) as shown in the table.**