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Paper Blood Banking (MLT 6Th )

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**Question no 1**

**RBC’S Destruction due to Rh positive and Rh negative**

The RBCs destruction occur due to blood transfusion when the mother blood RH is negative and father RH is positive blood, her immune system will make Antibodies which attack all people have different blood group and different RH (A,B,AB or O) .

There can be a problem if the mother and baby have separate blood group and different Rh then RBCs destruction occur. When the mother blood RH is negative and father RH is positive if the baby blood RH is positive just like father this can be issue if the baby RBC cross the placenta if the RH negative mother immune see the RH positive baby RBCs. Her make antibodies to fight and destruction occur and also fetal death.

**Question no 2 Explain the concept of single donor platelets and random donor platelets in own words?**

**Platelets concentrate**

Platelets transfusion are prepared by the separation of platelets from the whole blood or by apheresis from the single blood donor.

**#1 Single donor Concentration**

1. When platelets are separated from donor through by a machine Aphaeresis.
2. The blood collect from a donor through a blood cell separator centrifugation system which collect the platelets and then returns the plasma, red blood cell to the donor
3. We can obtain 300 ml of platelets from one donor through this process.
4. And these platelets are called single donor platelets single donor platelets.
5. Single donor platelets are more powerful then random donor platelets.
6. One unite of single donor platelets is equal to 6 – 8 units of Random donor platelets.

**#2 random blood concentration**

1. The platelets are separated from whole blood of the donor within 4 -6 of the collection time of the centrifugation.
2. Random donor platelets concentration is prepared from the one unit of the one unit blood collected from the one donor.
3. Platelets are removing from whole blood through centrifugation with in four hours after donation.
4. The Volume should be 50 ml.
5. The Storage temperature of the random donor platelets is 22cͦ - 24 cͦ

**Q3. Solve the following table?**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Reaction of cells tested with | | Reaction of serum tested against | | ABO Group |
|  | Anti-A | Anti-B | A-Cell | B-cell |  |
| 01 | O | O | + | + | **O** |
| 02 | + | O | O | + | **A** |
| 03 | O | + | + | O | **B** |
| 04 | + | + | O | O | **AB** |