 *IQRA NATIONAL UNIVERSITY*

*DEPARTMENT OF ALLIED HEALTH SCIENCE*

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*PAPER BLOOD BANKING*

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**Q1:**

**Ans :**

* The main reason of RBCs destruction and fetus death is the incompetibities between the father and baby blood .the RBCs of the father are seen to forigen into fetus blood and cuase hemolytic reaction and death the child due to hemolytic reaction.
* **RH Antigen:**
* 100% monkey and 85 % human reasltion occure.the RH blood group in different t types of antigens
* Clinically type D antigen Ramain antigen are non immunogen
* the surface of the RBC present D antigens very says posittive and not present says RH negative and some time we say D positive and D negtive .
* **Antibodies RH:**
* RH antibodies the are immnuo types antibody after thy are not present in the bodie after the immnuoization are any types antigen they are developed in the bodies .
* They are the result of the blood transfusion or during the pregnacy makes antibodie they are not present in the body.
* Rh antibody can cause hemolysis hemolytc transfuion reaction can cause .
* Rh negative persion should transfusion on Rhthe negative blood .
* **Rh Nemenclatuature :**

Fisher raise scientist was describe chromosome no 1 three gene D C and E.

* **Hemolytic disease for new born**
* It is a disease occure by the blood transfusion
* Hemolytyic disease it is during the pregancey in new born
* A condition is cause by the D antigens and D antibody incompatibilty RH desease in new born . reaction occure between RH antigen and antibodies cause hemolytic diesaes in new born .
* Sensitization RH D antigen production of maternal IgG. It can cross through flacenta . itself the body make easliy cause hemolatics in fetus
* Now injuestion fetus blood come into mother the mother blood make antibody against fetus antigen.
* This antibodies makes against antigen and cross the placenta . due to it IgG in nature . destructure the fetus RBC cause hemolytic in new born .

**OR**

The RBCs destruction occure due to blood trasfusion when the mother blood rh is –ive & father is +ive blood antibodies which attckes all pepole have different group and different Rh

(A,B,AB,and O)

There is problem the mother and baby have sepereter blood group & different Rh the rbcs occure.when the mother blood Rh –ive and +ivefather is Rh is the baby blood Rh is +ive the can be issuse the baby RBCs cross the placenta if the Rh -ive mother immuno see the Rh +ive baby antibodies to fight the destruction occure the fetal death.

**Q 2:**

**Ans :**

* **Random donor plateles:**

The whole blood come a platelet bag it is known as Random donor plateletes .

Platelets are removing from the whole blood through centritfuge with in 4 houres after donatio .

Volume should 50 ml .

Storage temperature is 22c – 24c

1 unti increase platelets 5 thousand platelets micro liter.and life is 5 days .

OR

Random donor platelets are collected from the whole blood after the centrifuge of 4 to 6 houre of centrifugation of blood .

* **Single donor platelets :**

A machine (ferasis machine )its types of machine .

Whole blood enter the machine it divided into different part and separate sulf centrifuge the blood .the blood component on the basic density .

We 300ml of platelets from one doner through this procces .and these platelets are clled single donor platelets .

Single donor platelets more then power full Random donor platelets .

One unti of single donor platelets is equal to 6 – 8 unti of Random donor platelets.

OR

Apheresis platelate single donor platelets because they are colleted from a single donor with an automated cell separater . donor usually have an IV line in each arm....single donor platelets offer several advantages over random donor concentrates including :less inventory and pooling.

**Q 3:**

**Ans :**

the following table:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Reaction of cell Tested with** | | **Reaction of serum Tested against** | | **ABO Group** |
| Anti-A | Anti-B | A Cell | B Cell |
| 1 | 0 | 0 | + | + | 0 |
| 2 | + | 0 | 0 | + | A |
| 3 | 0 | + | + | 0 | B |
| 4 | + | + | 0 | 0 | AB |