

Department of Pathology
Rajkot Homoeopathic Medical College
Parul University

A Visit to Blood Bank

Class :- 2nd BHMS
Year :- 2020-2`1
Place :- Rajkot
Date :- 3,4,5 March 2021
Time :- 11 AM to 1 PM

Pre-requisites:

➤ We were provided with following information:

➤ 1) Blood Groups

- There are various blood grouping systems such as ABO system
RH system, Duffy system
MN system, P system

of these ABO system & RH system are clinically important.

➤ 2) Blood transfusion reactions

Aims & Objectives:

- To provide the basic knowledge of practical aspect of pathology.
- To get inspired and involved in study during the said visit to learn about related procedures.
- To infuse confidence amongst students, its future and their carrier.
- To keep up with the new and improved techniques of blood transfusion.
- To see advanced machines and get of people to donate blood themselves and spread awareness regarding blood donations.
- To get knowledge about the basic procedures required to be performed before blood transfusion.

visit of department at life blood centre.

Thalassemia department.

- Aim – To prevent birth of thalassemia major baby.
- 1) We got information about how we can calculate the chance of child being born with thalassemia
 - a) SPOUSES- I) Minor II) Normal
 offspring – 50% chances of minor 50% chances of normal
 - b) spouses – Both minors
 offspring – 25% chances of major, 50% chances of minor,
 25% chances of normal
- 2) The center provides blood to more than 200 thalassemia patients.
- 3) Tests performed in the department
 - a) HPLC (High performance liquid chromatography test)
 - b) PND (Prenatal diagnostic test) – for suspected cases.
- 4) Due to repeated blood transfusion iron overload occurs which is combated by giving chelating agents along with blood.

Blood component area:

- Quadruple bag
- Triple bag – plasma platelets, RBCs
- Centrifuge at 4 to 22 c
- Within 6 hours components get separated
- single donor platelets – platelet apheresis.
- The donor can donate platelets twice a week
- 1 unit contains 250ml of platelets
- so in patients with bleeding disorder we can transfuse platelets instead of whole blood transfusion to prevent the complications.



TTI laboratory (Tranfusion transmissible infections)

- Test are performed for detecting presence of any infection in blood.
- test for infections like - HIV
 - HBV,HBC
 - Syphilis
 - Malaria ect.



Red cell serology lab:

- Here tests are performed on the patient's blood sample.
- Compatibility test a) manually – By tube method.
 - b) Semiautomatic – jell cards.
 - c) Automatic – SPRCA (Solid phase red cell adherence).

Blood storage area:

- RBCs – $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 35 to 42 days.
- Platelets – $22^{\circ}\text{C} + 2^{\circ}\text{C}$ for 4 to 5 days.
- Plasma - -30°C or below for 1 year.
- Blood is stored after performing all the tests.
- The blood group is mentioned on the blood bag before storing it.



Summary

This visit was very inspiring and informative

I got information about how the blood is processed

Before giving it to the patient

I got motivated to become a good doctor in the future

Life blood centre is a very good place to donate blood