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Short Communication

Analysis of Blood Transfusion Data of Blood Disease Patients and Thalassemia

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Abstract

Background: There are many diseases, many symptoms that need to be treated by blood transfusion. Thalassemia is another disease that we are talking about. And is also a group of patients that have to receive a blood transfusion on a monthly basis. Another very important thing is the donated blood that is used in the transfusion of patients. This group of blood must be less than 7 days from the date of donation. And is also the blood that passes through the reduction of white blood cells as well. Even though there are a limited number of patients But most are young patients. We expect and prepare the best blood components for them.

Aims: To analysis rate of requesting, delivering blood component at Blood Transfusion Centre, Faculty of Medicine, Khon Kaen University, Thailand.

Methods: The data of patients who request LPRC or LDRC; were collected and manual record into Excel. And analysis by daily requesting cards of Thallassemia patient.

Results: N of analysis is 240 of thalassemia patients who have blood transfusions every month. As well as requesting blood components that has been reduced through the number of white blood cells. Both pre-storage and post storage product depending on the severity of the patient.

Summary/Conclusion: In conclusion blood transfusions in this thalassemia patient. There are increasing requests for both patients children and adults patient. Both the number of patients increasing as well. Causing the preparation of a large number of blood components as well. Then we should discuss and plan for decrease work load and give them with the best product with the medical team.

Keywords: Blood Transfusion; Blood Disease

Treating a patient with a blood transfusion can have adverse effects on the patient and can be fatal. Therefore, it is considered a method of treatment that is not less dangerous. How will patient safety be directly related to the patient's treatment team? Blood production of the central blood bank. The doctor, nurse or treatment team in the ward decides which treatment to choose. Therefore, the treatment of patients by transfusion must have necessary and important indications. It must be recorded in the patient file. which can be checked later. The patient himself must be aware of the advantages and disadvantages that may occur after blood transfusion. because we know that in the human blood system Not only blood types are divided into A, B, O or AB.

Therefore, we can see that there are many benefits in treating the patient with medication, blood transfusion, and blood component accumulation. The components of the blood are like a kind of medicine used to treat the sick. Therefore, the selection of treatment methods using various medical supplies, including checking the accuracy of the relevant agencies. Including monitoring the accuracy of the relevant staff, it is therefore essential that the patient responds to treatment or recovers from the illness as desired.

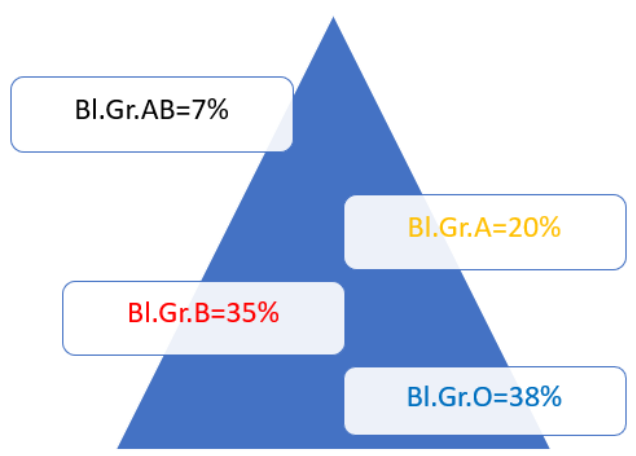

Figure 1: Blood Usage Statistics/2019.

This study was collected from venipuncture at the Central Blood Center, Srinakarin Hospital. by thalassemia patients who need continuous blood transfusions every month This group of patients who need fresh blood for blood donation has been donated for no more than 7 days and is a component of the blood that reduces white blood cells to a minimum. To prevent the occurrence of Febrile non-hemolytic transfusion reaction (FNHTR) in patients after blood transfusion. And this group of patients who will receive blood components must pass the antigen test of the other blood group system (Unexpected Antibody) first to know which patient has antibodies. either positive or negative We can find donor blood components that have different antigens. (Non-Specific) to prepare.

It can be seen that in addition to the difficulty in selecting blood components for this group of patients. These patients are usually patients with unknown antigens and antibodies of other blood groups (Unexpected Antibody). Donated blood must be tested for antigens and antibodies of other blood groups (Unexpected Antigen) and to prevent the formation of Human Leukocyte antigen (HLA), which can cause problems in the future.

Therefore, the blood that we have already donated must be checked for unexpected Antigen first. Such as antigen E, C, c, e, M, Mi^a, Jk^a, Jk^b etc. When this group of patients come to collect blood again. When we know what patients are in the known unexpected antibody. We are able to provide blood component that does not have the specified antigen. To prevent the occurrence of blood incompatibility (Antigen - Antibody Incompatibility). Which will be good for patients to receive blood components safely. But there is still a problem at the moment is when there are patients with unexpected Antibody Negative outcomes, we are unable to donate unexpected antigen negative blood for patients. Because people who donate blood and the patients who come to pick up the blood components at the wrong time. Sometimes we need to take the donated blood component that has antigen to the patient with antibody negative. Which may cause later immunization problems and the problem of finding blood will become difficult later.

And what the study participants expect from now is. To have coordination with the blood donation unit and blood separation unit to reduce the white blood cells in the blood donated with the desired antigen is negative. As a blood component provided for one patient with a negative antibody as well but with the number of negative blood donors that have an unexpected antigen and also donate in a timely manner consistent with the patient's blood supply. Therefore also making the central blood transfusion centre Faculty of Medicine Khon Kaen University unable to have enough blood to donate.

Therefore suitable for every hundred percent patients but the researchers hope that the methods we propose will be considered as a way to deal with the problems they face.