

Blood Transfusion Practice

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IN 1983, approximately 6000 transfusions of blood and its products were administered in Bahrain giving roughly the national transfusion rate of approximately 17 per 1000 population per year and every third patient admitted to Salmaniya Hospital required transfusion. Patients with hemoglobinopathies require multiple transfusions and their incidence appears to be high in Bahrain. However, there are reports of high rates of unnecessary transfusions in hospitals. *These reports have repeatedly advised* in exercising judicious use of blood in clinical practice when particularly in countries where there is a strain on volunteer donation of blood.

In addition to hemoglobinopathies there are very many indications of blood transfusions, but article in this issue on blood transfusion in anaemias has stressed on its limited indications, proper use of component therapy and critical clinical judgement compared to risks involved in transfusions.

With the achievements in techniques in blood banking particularly in preservation and cell separation, the administration of various components of blood have become more practical and choice of treatment, limiting the use of whole blood. Not only that, limited use of whole blood has made possible to prepare several components from a donor unit and thus maximizing the use of blood resources. Therefore, it is important to select proper component in clinical practice. Use of automation (automated cell washers and separators and automated blood grouping) has become an important aspect of blood banking.

As it is essential to choose red blood cells for anaemias, platelets for bleeding disorders and granulocytes in severe infection, important is also to select type of red cells — washed red cells, leucocyte-poor red cells, frozen red cells and leucocyte-poor irradiated red cells depending on the indications of transfusion, assessment of the single unit requirement or multiple transfusion requirements and most important, on the basis of understanding the changes which occur in oxygen transport on the patient to be transfused and the changes undergoing in stored blood. A hypoxic patient usually may have red cells capable of enhanced Oxygen release in which case the transfusion of stored normal cells represent an inferior oxygen transport.

Blood transfusions involve the risk to the patient and may be hazardous. It is not only the clinical judgement required on its indication but more important is the evaluation that transfusion has benefited the patient. Lack of immediate complications and changes in laboratory data do not necessarily mean the success in transfusion since, delayed immunologic and non-immunologic effects usually remain uninvestigated in cases who receive single transfusions and are important in patients who need repeated transfusions. This may be due to the lack of co-ordination between clinicians and blood bank. In Bahrain, the problems of iron overload and post-transfusion hepatitis in patients of thalassaemia and sickle cell anaemia receiving multiple transfusions have received a very little attention. The fact, partly that cases are never reported back to blood bank and partly non-availability of adequate investigating facilities. For the overall success of any transfusion, interdependence and sagacious consultation between physician and blood bank officer is essential. □□