

## CENTRAL COMMITTEE FOR THE NATIONAL BLOOD TRANSFUSION SERVICE

## CLINICAL USE OF RED CELL PREPARATIONS

1. As stated in NBTSCC(75)P6 it has been estimated that in order to meet the needs of clinicians for freeze-dried AHG concentrate to treat haemophiliacs in England and Wales the fresh plasma from at least 275,000 blood donations must be made available annually for processing. It is possible to obtain this plasma by increasing the number of blood donations and separating the plasma from those not required for whole blood transfusion or by subjecting a relatively smaller number of volunteers of plasmapheresis or by separating the plasma from a greater proportion of the number of donations of blood at present collected.
2. As the present amount of blood is broadly sufficient for clinical needs, to increase the number of donations collected in order to obtain plasma for processing as AHG concentrate would mean that more red cells were collected than were required and would lead to unnecessary wastage as the unused units of red cells became time-expired. Apart from the additional cost involved in collecting more blood it would clearly not be acceptable that the NBTSCC should ask volunteers to give more blood only to discard an increasing proportion of red cells even though the aim was to provide the optimum treatment for haemophiliacs.
3. It has been shown in other transfusion services that the amount of blood used in the form of concentrated red cells can be as much as 50% - 60% of donations issued to hospitals from normal collections. It has therefore been decided not to ask a number of donors to subject themselves to frequent plasmapheresis but to adopt the third method and to endeavour to separate plasma from approximately 40% of the units of blood (420 ml blood + anticoagulant solution) issued to hospitals. There is considerable leeway to be made up; at present in England and Wales less than 10% of donations transfused are in the form of concentrated red cells and there is much variation between Regions. (see Appendix I). Nevertheless the target of 40% is considered realistic; it has already been achieved in Scotland.
4. An essential element in the success of the programme is that clinicians should be prepared to accept concentrated red cells as an alternative to whole blood whenever possible. While it is, of course, entirely for clinicians to decide what treatment is required for their patients it is desirable that they should be aware not only that greater use of concentrated red cells would make more plasma available for the preparation of AHG concentrate and other fractions without increasing the number of blood donations to be collected but also that in practice concentrated red cells can be used in place of whole blood in many circumstances. Moreover it is important for clinicians to realise that reconstitution of concentrated red cells to resemble whole blood by adding albumin solution or plasma protein fraction is a most uneconomic way of using blood.
5. The purpose of this paper is to acquaint members with the facts and to enlist their help in drawing the attention of clinicians to the undoubted value of transfusing concentrated red cells in appropriate circumstances.