INTRODUCTION At present, the Oxford Regional Transfusion Service supplies some 5,000 litres of plasma annually to the Oxford Haemophilia Centre. This is achieved by separating the plasma from approximately 22,000 donations. Expansion plans are in hand to increase the volume of plasma supplied for fractionation to 6,500 litres per year. Although this represents an increase of only 22 per cent it will necessitate the handling of 36,000 donations annually since it is proposed to reduce the volume of plasma removed from each donation to 180ml. instead of the 210-220ml. removed at present. The proposal to further increase the volume of plasma for fractionation to 10,000 litres per year will involve the separation of plasma from 55,000 donations. This represents an increase of 53 per cent above our committed expansion and an increase of 150 per cent above our present separation.

The above proposals raise important issues for the Transfusion Service If attempts were made to achieve 10,000 litres of plasma annually without increasing the blood collection above the prsent level of 90,000 per year, the effect will be that 60 per cent of the units of blood available for the hospitals will be in the form of packed red cells. I consider this to be unacceptably high when one considers the needs of the region particularly with respect to the increasing needs for platelet concentrates, fresh-frozen plasma and geographical considerations with several hospitals at a considerable distance from the Centre requiring their holding considerable stock of whole blood in case of emergencies. It is my opinion, therefore, that any increase should be obtained from 15,000 to 19,000 additional donations collected annually.

An increase in blood collection of this magnitude is not without its problems. In this memorandum consideration is given to the implications of such a programme of expansion and recommendations regarding the increase in staffing and revenue required. These have been carefully considered and should be regarded as a minimum since certain unknown factors operate. I strongly recommend that if these proposals are accepted and put into effect then a review of the staffing should take place after a period of six months so that deficiencies can be corrected.

SECTION 1 COLLECTION OF ADDTIONAL 15,000 - 19,000 DONATIONS

(a) Availability of Donors

The present region serviced by the Oxford B.T.S. does not conform to the Oxford R.H.A. boundaries. It does not include a portion of East Berkshire and East Buckinghamshire administered by the Oxford R.H.A. and includes the Swindon area of the Wessex R.H.A. and parts of East Gloucestershire of the Avon R.H.A. A survey of the present Oxford B.T.S. area has been carried out and it is estimated that some 12,000 to 15,000 additional donations could be collected annually. The highest number of the new donors will be recruited in the Northampton and Milton Keynes districts which have the most rapidly expanding populations. This has important implications for blood collection, which will be considered below.

Recruitment of some 8,000 new donors, however, does not allow sufficient reserve if the Service is to guarantee the production of 10,000 litres of fresh plasma per year. It is suggested therefore, that the present Oxford B.T.S. is altered to include that area of East Buckinghamshire and East Berkshire, comprising the towns of Windsor, Maidenhead, Beaconsfield and Gerrards Cross. The population involved is approximately 107,000 and in 1975 yielded 2275 donations. There is, in addition, the possibility of recruiting additional donors in these towns.

It is realised that this proposal requires a rearrangement of the boundary serviced by the Oxford Transfusion Service. Mr. Peter Collins and I have had detailed discussions with Dr. T. Cleghorn, Director of the N.W. Thames Regional Transfusion Service and have agreed with him that the above proposals could be put into effect together with other proposals considered in Section 3, below. This leaves the towns of Slough, Bracknell, Burnham and Denham, which are part of the Oxford R.H.A. region, in the catchment area of the N.W. Thames Transfusion Centre.

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These proposals are based on the assumption that the Oxford Centre will still be responsible for the collection of blood in Swindon and in that part of Gloucestershire at present serviced. If these facilities were to be withdrawn then reconsideration of the boundaries would have to take place.

(b) Recruitment of the Additional Donors

Prior to the recent restrictions on appointments to the Administrative and Clerical grades agreement was reached with the Personnel Department of the R.H.A. that an additional post of Assistant Regional Donor Organiser on the G.A. Grade could be employed providing overall expenditure was not increased. The recruitment of additional donors and the maintenance of a larger number of donor panels necessitates a thorough review of the Senior Staffing of the Donor Organisers department. In a previous memorandum to Dr. Rue I made comments on the present arrangements but it was not possible to implement the proposals which I put forward at that time. I note that there is to be a review of administrative and clerical staffing in the near future which is to cover the period up to 1980. Should the proposals to pursue this expansion be accepted then it is hoped that the gradings of the present staff can be reconsidered. Also it will be necessary to employ an additional Assistant Regional Donor Organiser at a grade to be negotiated.

Increasing blood collection up to 19,000 donations per year will result directly in an increase in the clerical work associated with donor call-up and records. This presents a problem which is dependent on the availability of computor facilities.

(i) If computor facilities for the principal donor panels could be made available coincidentally with the increase in blood collection then it is estimated that the additional work could be achieved by the present clerical staff with a regrading of one clerical post to higher clerical.

(ii) If computor facilities are not to be available or are unduly delayed then it will be necessary to employ one additional higher clerical officer and two clerk/typists. This will present a problem with respect to space, since as well as work-space, room will have to be found for the extra filing cabinets that will be required for the donor record cards.

Informal discussions have taken place concerning the transfer of the principal donor panels to the computor but no decision has yet been made. Before the proposal to expand blood collection in the region is accepted then I think that urgent consideration should be given to this matter.

(c) Blood Collection

At the present time, the mobile blood collecting teams carry out eighteen donor clinics each week. The proposed increase in blood collection will require an additional three (and in some weeks four) donor clinics. Bearing in mind that many of the extra sessions will take place in the Northern part of the Region and will involve considerable travelling time it will be necessary to recruit an additional mobile team. The present establishment of this department in the Centre is 51, comprising one head nurse (S.R.N. grade 6), one S.E.N., 6 team leaders and 43 donor attendants.

Donor attendants are recruited without previous nursing experience and it is essential, therefore, that they are properly trained and supervised. An additional mobile team will raise the number of donor attendants to 52 (i.e. an additional nine) and proper training and supervision cannot be carried out with one S.R.N. (head nurse). It is requested therefore, that approval is given to employ a staff nurse (S.R.N., grade 5) who will act as team leader to the new team.

The mobile team will have to be completed by the appointment of one driver. These appointments are complicated by negotiations concerning terms and conditions of service, but providing the additional driver at present approved can be appointed it is not anticipated that additional drivers will be required for the extra deliveries and collection of blood from sessions.

Additional medical assistant sessions will be required for blood collections.

SECTION 2 ADDITIONAL LABORATORY WORK

(a) Serological Investigations

The collection of an additional 15,000 - 19,000 donations will have a considerable effect on the work of the laboratory. Each donation will require grouping, appropriate antibody tests, Hepatitis B surface antigen and VDRL tests. Consideration is being given at present to the laboratory staffing and steps are being taken to increase the members of the Senior technical staff within the present establishment. By means of internal reorganisation and the increased use of automation within the laboratory it is hoped that the increased work can be largely contained with the fully complemented technical establishment.

However, two posts are required for the expansion:

(i) The grouping section of the laboratory will be responsible for the correct determination of some 110,000 donor blood groups annually together with other relevant tests. This section should be under the control of a Chief Technician instead of the Scientific Officer, as at present. I request, therefore, the re-grading of one post on the establishment from Scientific Officer/Senior Technician to Chief Technician.

(ii) An additional post of junior technician will be required to assist with additional quality control tests required by the Safety in Medicines Act.

(b) Plasma Separation for AHG concentrate

At the present time the evening plasma separating shift yields approximately 5,000 litres of plasma annually. It will be necessary to separate a further 5,000 litres during the morning. In order to maintain an annual rate of 5,000 during the evening shift it will be necessary to separate plasma from about 40 more donations each evening than is being done at present due to the reduction to 180ml plasma per unit. This will have to be achieved by automating and improving the separation technique since the size of the premises does not permit the employment of additional staff. Similarly the morning shift, for which permission has been given to employ four additional part-time ancillary staff will have to separate the remaining 5,000 litres per year. These staff should be supplemented by one laboratory orderly who will not only take part in assisting in these duties but will take part, with his colleagues, in the 24-hour cover of the Centre.

SECTION 3 DISPOSAL OF ADDITIONAL UNITS OF BLOOD

The Regional Transfusion Service has a reasonable balance, at present, with respect to blood collection and issues to hospitals. The collection of an additional 15,000 to 19,000 will affect this balance adversely and it is important that it is put to effective clinical use.

Out of the various possibilities the one that I recommend to the Regional Health Authority is that the Oxford B.T.S. assumes responsibility for the service of those hospitals in the East Berkshire AHA at present receiving their supplies of blood and blood products from the N.W. Thames B.T.S. This line of action has several advantages, which include:

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(i) It allows the transfer of part of the Oxford R.H.A. region now serviced by the N.W. Thames Centre, (see SECTION 1) to enable increased blood collection to take place and still leaves N.W. Thames with a positive balance of some 8,000 donations per year from Slough and Bracknell which are badly needed in the London area.

(ii) It will result in all the hospitals in the Oxford R.H.A. administrative areas being supplied by the Oxford B.T.S. Thus the staff in these hospitals will not be receiving their supplies of blood and blood products from a region where they have no representation in policy-making decisions.

I have discussed this proposal with Dr. Cleghorn and have his general agreement. I hope to meet Dr's Sayle and Easton in the near future. The requirements of the three hospitals involved, based on the 1975 figures, are shown in Appendix I. It is my view that there might be an increase in the requirements by 1977 which might account for some 12,000 - 15,000 of the additional donations collected. Surplus blood could be sent to other region where it was needed.

Supplies of P.P.F., plasma, anti-D immunoglobulin and grouping reagents only partly involve work in the Centre. Arrangements will have to be successfully concluded for increased allocations of those products obtained from the Lister Institute, Elstree and the Blood Group Reference Laboratory. However, since the transfer of these hospitals to the Oxford Region does not, per se, necessitate a national increase in demand for the products, I do not anticipate difficulties. With respect to anti-A+B and anti-D supplied from the Centre, I do not anticipate difficulties in expanding the service to meet these committments.

I note that the hospitals in East Berkshire AHA (in particular, Wexham) receive a considerable supply of cryoprecipitate. This presumably arises from the unavailability of AHF concentrate in the N.W. Thames region. I hope that consideration will be given to their receiving a supply of concentrate should these proposals be accepted.

SECTION 4 LABORATORY OFFICES

The clerical work associated with the laboratory is, at present divided into two offices; viz:

(i) Blood Issue: The staff comprises one higher-clerical officer, one clerk/typist, one part-time clerk/typist and assistance is given by the orderlies at certain times of the day. This office is responsible for the day to day issues of blood to the hospitals and the comprehensive recording system which is an essentital part of the records which must be accurately maintained so that incoming donations of blood can be traced from patient to donor if necessary. This work has been made more complicated during recent months by the introduction of specialised blood products, e.g. platelets, in great quantities than previously.

(ii) Laboratory Office: The staff comprise two full-time and one part-time clerk/typists. Their work consists of numerous exacting clerical duties associated with blood grouping of blood donations and with antenatal testing.

The proposals to increase blood collection and service three additional hospitals will inevitably result in more work both in the blood issue and laboratory office. Ideally, these offices should be combined and an additional post of office manager at G.A. Grade be added to the establishment. This matter, again, will be raised during the forth coming review of administrative staff and should remain a long-term objective. However, initially, the increase could be carried out by the additional post of higher clerical officer in the laboratory office.

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SECTION 5 IMPLEMENTATION OF THE PROPOSALS

If agreement if given to the above proposals then there are several factors to take into account from the B.T.S. point of view:

(a) The implementation of the proposals is dependent on successful completion of the upgrading of the Laboratories at the Transfusion Centre according to the agreed scheme. This is due to commence in May 1976 on a six-month contract.

(b) Allocation of capital and revenue expenditure in advance of the agreed starting date in order to obtain the necessary equipment and to appoint and train staff, and recruit sufficient extra donors prior to the starting date.

(c) Successful conclusions to discussions concerning the alteration of the Regional Transfusion Service boundaries and the servicing of the hospitals in East Berkshire.

(d) Allocation of finances already applied for, to purchase a publicity vehicle/caravan for donor recruitment. This is already an urgent requirement; increasing the donor panels by some 25 per cent make the purchase of this vehicle a necessity.

(e) Agreement on the manufacture of Factor VIII concentrate.

Assuming that the above criteria can be met and the building work is completed at the Centre by November 1976 then the earliest time that the proposals can be implemented is 1st January 1977, and financial considerations are based on that date.

SECTION 6 FINANCIAL CONSIDERATIONS

These will involve a capital committment to equip a new mobile blood collection team and an increased revenue allocation.

Details of the required expenditure are given in Appendix II. Costs are detailed as those applicable in a full financial year and those revenue costs which will be incurred in 1976/7.

H.H. Gunson M.D.