# PRESENT SOURCES OF MATERIALS FOR TREATMENT OF HAEMOPHILIA AND POTENTIAL FUTURE SOURCES

## FRACTIONATION CAPACITY

In the paper "Materials for the treatment of haemophilia and Christmas disease" the number of donations needed to provide materials in UK is estimated to be 416,000. If the proportions of cryoprecipitate and concentrate preferred by the haemophilia centres do not change, about four-fifths of the total number of donations will be needed in the form of concentrate, ie. about 333,000 donations or 66,600L of plasma per year. Thus about 1425L plasma would have to be fractionated per week (46 week year) to produce the estimated amount of concentrate required in UK.

The present capacity is:-

| | |
|---|---|
| BPL Elstree | 135L per week |
| PF Laboratory, Oxford | 115L " " |
| BPL Edinburgh | ~~200~~L " " – 2 ed. inc |
| | (~~250~~L) " " |
| | 550 L |

It is estimated that when building operations in progress are completed and equipment installed the capacity will be increased to:-

| | |
|---|---|
| BPL Elstree | 200L per week |
| PF Laboratory, Oxford | 145L " " |
| BPL Edinburgh | ~~200~~L " " ? 2000L |
| | 545L " " |

The capacity at BPL Elstree could be increased, possibly by as much as 300L per week, but to achieve this would depend upon the needs for other preparations of coagulation factors, upon the provision of equipment and other facilities and upon accommodation. There has not been time to discuss whether capacity at BPL Edinburgh could be increased. Assuming a similar increase to that at Elstree were feasible, the total fractionation capacity in UK might be as much as 1145L plasma per week, ie. but still about 300L less than the estimated requirement.

If only high purity concentrate (ie. 400 i.u. in 20 ml or less freeze-dried material) were prepared, the above figures would have to be increased by about one third, because of the poorer recovery of Factor VIII in the high purity product ie. about 30 per cent compared with 40 per cent recovery in the intermediate purity product.

PROVISION OF BLOOD

To reach a yearly total of 416,000 donations of fresh blood, about 130,000 more donations would have to be collected than were collected in 1972. Extension of the use of plasmapheresis might be the most economical way of obtaining the plasma required. The effect of this extra load on transfusion centres would have to be considered in detail; additional staff and equipment and possibly transport would almost certainly be needed.

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