## NATIONAL BLOOD

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TRANSFUSION SERVICE

Tel.: Cardiff GRO-C

Welsh Regional Transfusion Centre, Rhydlafar, St. Fagans, Cardiff. CF5 6XF

14th July, 1977.

JAFN/pm

Dr. W. d'A. Maycock,
Department of Health & Social Security,
Hannibal House,
Elephant & Castle,
LONDON SE1 6TE.

Dear Dr. Maycock,

## Re: Factor VIII production, cryoprecipitate or concentrate.

I may have misjudged the general attitude of Directors towards this matter at the recent Directors' Meeting (6.7.77) but I felt it would be worthwhile to put on paper my own views which are as follows:-

The arguments for and against the two therapeutic materials have been repeatedly stated but, perhaps, need to be restated and, in particular, re-examined at intervals to all maximal forward planning.

In order to give optimum treatment to the maximum number of patients factor VIII must be prepared in a manner which takes into account cost and yield. I raise the whole question again because I am unsure as to whether all the components of this equation are being fully evaluated.

## Recovery of factor VIII.

This must include in vivo recovery. I feel that we do not fully consider that cryoprecipitate is often given by busy, unskilled medical staff out of normal working hours thus:-

- (a) Bags are, probably, rarely washed with saline, hence 10 20%? left behind.
- (b) Thawing time and conditions, and time between preparation and administration of dose is often variable leading to further unestimated losses.
- (c) Overdosage (in terms of factor VIII economy) is likely to be the rule as cryo packs are so variable in factor VIII content (as exemplified by the figures in the recent working party report). This is particularly a problem with children, even so some patients are likely to be under treated.

The 1974 working party (BJH 1974 27 p.395 seemed to show a small overall advantage of factor VIII concentrate over cryoprecipitate (\$\sigma 25\%\$). It seems likely that, under general use, the figure would be higher since I imagine that a) and b) above would be less of a problem at Oxford than throughout the country at large.

## 2. Cost/unit of factor VIII.

Clearly this is difficult to assess but, commercially, labour intensive processes are costly and cryoprecipitate production, frequently requiring overtime in most Transfusion/Haemophilia Centres, is labour intensive and cannot be planned since it depends on availability of volunteers.

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Dr. W. d'A. Maycock

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Production of fresh (18 hour old) pooled frozen plasma can be planned and together with automated production of concentrate might, in the end, prove less costly.

In view of these facts which, I am sure are well known to everyone, I am surprised that we are exercising our minds towards the improvement of a product which is destined for obsolescence. Even assuming the exercise is successful, we will have to re-assign a new potency level/pack (which may cause confusion). We will then have to convince haemophilia directors that this is valid. Failure to do this will merely result in the same number of patients receiving more factor VIII. It will not improve the factor VIII availability to patients in general. Haemophilia Centre staff appear to favour concentrate, it being easier to use, more versatile and having a longer storage life. I, therefore, feel that the only solution that we have in sight for adequately treating the country's haemophilia population is to push wholeheartedly and enthusiastically towards the expansion of factor VIII concentrate production and work towards the phasing out of cryoprecipitate. Failure to do this is just delaying the inevitable. Probably, time and money would be better used in convincing the health departments to enlarge production facilities to obviate the use of foreign currency for purchase of commercial factor VIII.

Yours sincerely,

**GRO-C** 

J. A. F. Napier, Director Designate.