HAMPSHIRE AREA HEALTH AUTHORITY (TEACHING)

NORTH HAMPSHIRE HEALTH DISTRICT

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GRO-A

18th May 1979.

Professor G.I.C. Ingram,
Department of Haematology,
Louis Jenner Laboratories,
St. Thomas' Hospital & Medical School,
London S.E.1 7EH

Dear Ilsley,

re: GRO-A
GRO-A Surrey

Thank you for your letter about the dose of Factor VIII we have been giving this lad. He weighs 55 Kgs. and I have calculated his dose by multiplying the percentage rise I am looking for by his body weight and dividing this by a factor of 1.5 as recommended for children by Rosemary Biggs. From our own work the factor of 1.5 is weight related and there seems to be a fairly sharp cut off at 60 Kg. when we should use a factor of 2.0. This formula gives 733 units for a 20% rise and 1100 units for a 30%.

Traditionally at Treloars, we have used a 20% rise for simple, uncomplicated haemarthroses and a 30% rise for complicated haemarthroses and muscle bleeds. I have worked on the assumption that because there is no tight confine to a muscle, the boys present rather later implying a larger bleed. We have also noted in a recent survey, which is awaiting publication, that muscle bleeds on the whole require more transfusions per bleed than joint bleeds.

I am aware that there are many publications around at the moment extolling the virtues of lower doses of Factor VIII. All I can say, is that I have yet to see anything that could be called hard data and the results must be classed as anecdotal. Because of this, I have initiated a double-blind controlled trial of three different doses in the management of haemarthroses involving the major joints. All bleeds into the knee, ankle and elbow are graded according to tenderness and according to limitation of movement. These parameters are checked twelve hourly by medical staff who are blind to the original dose. The dose regimes used have been 7, 14 and 28 units per Kg. and we have to date entered over 300 bleeding episodes into the trial. An interim analysis at this stage of about 100 elbow bleeds has shown convincing evidence that treating elbows with the lower dose results in delayed return of full mobility (I also think that there is accumulating evidence that the low dose is inefficient in many other situations). I have also divided the joints into target and non target joints. It is apparent

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that when the elbow is a target joint the low dose is even more harmful.

GRO-A's right elbow is his major target joint and I believe it would be wrong to treat bleeds into this joint with anything other than full doses of Factor VIII. I would also like to highlight some of the individual bleeds that GRO-A had last term.

On 8.1.79 he bled into six sites simultaneously and I considered a 30% dose not unreasonable in that situation.

On 11.1.79 he twisted his ankle and presented a half an hour later with a frozen joint which had only recently recovered from a bleed. Again I considered a 30% dose indicated.

His shoulder bleeds were extremely painful and you will note from 23.1.79 his major problems concerned his right elbow and I have explained the rationale for my dosage in that situation.

As far as the prophylaxis dose is concerned, our own studies have shown that a 30% dose for prophylaxis is more efficient than the lower dose. When using prophylaxis to protect a particular joint, I think that a higher dose is always justified.

Finally, I should point out that the adolescents in my charge come to me at a time of greatly changing stress on their joints. I believe that I am the custodian of these joints during their time with me and if I can send them from the College with their joints intact, then I believe I have done some part of what I should. Because of this responsibility, I think it would be wrong for me to use unproven dosage schemes for any length of time.

Kind regards.

Yours sincerely,

GRO-C

A.Aronstam
Consultant Haematologist.

P.s. Hemofil 1560 x 2 means that he received his 1500 units from two bottles.