AIDS Information for Haemophilia Directors

To date there have been just over seventy patients with AIDS who did not have other risk factors except for receiving blood or blood products. The number of course must be higher as not all cases are recognised and it is clear that many are not reported in National Statistics. We enclose two documents (Enclosure 1 and 2) which are of relevance to you as a haemophilia director.

(a) Report of the World Haemophilia Aids Centre - the table on P5 gives the extent and nature of the problem internationally. As of 25th September 1984, there were 16 proven cases of AIDS in haemophilia and 188 cases of ARC. Approximately half the patients with AIDS had died at the time of the survey.

(b) Morbidity and Mortality Weekly Report - 26th October, 1984. The figures in this report are later than the WFH survey and show 52 cases -48 with haemophilia A, 2 with haemophila B, 1 with Factor V deficiency, 1 - acquired F VIII deficiency postpartum. Three of these patients had other risk factors for AIDs.

In those patients the commonest infection is Pneumocystis carinii pneumonia but various combinations of other viral, protozoal and fungal infections were also found (Enclosure 3). Kaposis sarcoma seems to be rare compared to other "at-risk" populations and has only been reported once in a factor V deficient patient.

Epidemiological studies have so far failed to clearly identify common batches for Factor VIII concentrates in AIDS cases. However studies in this area have been greatly enhanced by the development of tests for HTLV III antibody. The frequency of occurrence of the antibody varies greatly in different haemophilia populations - in high users of American concentrate it may be found in 40-75%, whereas in users of locally produced concentrates it may be as low as 10%. There is now however clear evidence that these locally produced concentrates have been contaminated by infected blood which resulted in sero-conversion of approximately half of the recipients.

Because of the rapid growth of knowledge in this disease we felt we should write to you with some preliminary information on -

1) The measures which have been adopted to contain further blood borne transmission of the disease and some guidelines on
2) patient testing
3) talking to patients and their relatives
4) advice for centre staff on patient care

(1) Containment of blood borne infection

Donors. The general policy of the BTS is to ensure exclusion of donors at risk of transmitting AIDS. This is done in Scotland by sending out to potential donors and an explanatory leaflet in which there is a simple description of AIDS and "at-risk" people. These are -

- residents of or visitors to certain areas such as Chad, Haiti and Zaire.
- sexually active homosexual men
- present or post abusers of intravenous drugs
- sexual partners, male or female, of any of the above people.

An opportunity is offered any potential donor to see a doctor if they think they fall into these groups. All donors are required to sign this document before giving blood (Enclosure 4).

All donations will eventually be tested for HTLV III-Ab but as yet the volume of testing material cannot be supplied however this will be a possibility in the next year or so. There are obvious financial implications for BTS for provision of such reagents, with containment equipment, and staff.

Concentrates

Factor VIII Evidence is accruing that HTLV III is heat labile but the data from "spiked" concentrate is entirely related to U.S. concentrates and is minimal. It seems that in concentrates HTLV is inactivated by dry heat at 68° for 24 hours. It is unlikely that this process completely inactivates Non A Non B hepatitis. Loss of yield is 15% for dry heat. Wet heat with stabilisers is probably more effective but evidence is lacking. Loss of yield is up to 50%. Of current products heat treated Koate HT and Factorate HT are dry heated and sell at 12p a unit. Travenol Hemofil T is dry heat treated and sells at 15p a unit. Alpha Profilate (heated) is wet-treated (14p a unit). Immuno also have heated preparations.

Factor IX Profilnine (heated) (Alpha), heated Konyne (Cutter) and Immuno (heated Prothromplex) are available at prices up to 20p a unit but the effects on efficacy and thrombogenicity are unpublished. Since AIDS and laboratory changes seem (controversially) to be less common in Christmas disease than haemophilia A no firm recommendation can be given on heated factor IX.

Heated Feiba is also available from Immuno at 30p a unit but is probably not cost-effective.

BPL Factor VIII BPL can dry heat 30% of its output from Jan.1st and the rest in two months time when two more ovens are installed to supplement the existing one. The process produces an acceptable in vitro product but extensive clinical trials have not been undertaken.

Scotland From now on all Scottish factor VIII will be dry heated to supply Scotland and N. Ireland.

Options in probable decreasing order of safety from AIDS for Haemophilia A

1. Heated U.K. concentrate (note: still NANB hepatitis risk).
2. Single donor cryo. or FFP
3. Heated imported conc. (note: still NANB hepatitis risk)
4. Unheated U.K. conc.
5. Unheated imported conc. - almost certain to be contaminated.

Note: Heated concentrates may still transmit hepatitis.

Recommendations

1 Concentrate is still needed, bleeding is the commonest cause of disability and death.

2. Use DDAVP in mild Haemophilia A and vWd if possible.

3. "Virgin" patients, patients not previously exposed to freeze dried concentrates (UK or imported) - use cryoppt. or FFP (for Haemophilia B) if possible (Hepatitis risk of concentrates)

4. Children and others where volume considerations demand concentrate:-

Haemophilia A: (a) Heat treated British concentrate (if available).
(b) Heat treated imported conc. if (a) not available.

Haemophilia B: British factor IX concentrate

5. In other patients, patients on home therapy and when donor exposure from cryoppt. is over about 200 (exposure to hepatitis likely):

Haemophilia A: (a) Use heat treated British concentrate if available
(b) Use heat treated imported concentrate if (a) not available.

Haemophilia B: British factor IX concentrate

In individual patients there may need to be a choice. In general, heated concentrate appears to be the recommendation of virologists consulted but individual Directors may wish to make up their own minds. The argument that HTLV III positive patients have already been infected and could receive unheated American material is not accepted due to risk to families, staff etc.

Supplies

It seems that as from January 1st 1985, a limited supply of BPL heat treated British factor VIII will be available. Preference will be given (a) to treat patients defined in recommendation (4) above and possibly (b) to those willing to participate in clinical trials.

NOTES

1. The Blood Products Laboratory cannot take back for reissue unused unheated concentrate. Do not ask your BTS to order more of this than you are willing to use becauses this would prejudice supplies of heated material later in the year.

2. If the bill for heated commercial concentrate is heavy at first it can be put to your Authority that increased supplies of heat-treated BPL material could be available later in the Summer as stockpiled unheated material at BPL is heated.

3. Funding will need to be negotiated at local level although strong representations are being made to DHSS for central funding if needed. Please inform the Chairman (Prof. A.L. Bloom) and Secretary (Dr.C.R.Rizza) if you are experiencing difficulties.

4. The need for elective surgery etc. should be assessed in the light of supplies of heated concentrate.

Laboratory Tests

All samples from patients who have had concentrate should be treated as "high-risk" even if they are HTLV III-Ab negative. They are subject to the regulations promulgated by the Advisory Committee on Dangerous Pathogens. It is expected that updated regulations will soon become available for discussion. In the meantime all samples should be handled as for hepatitis B risk. They should be labelled 'Dangerous Specimen', double-wrapped in clear polythene bags which have a separate envelope for the form (see enclosure 5). Careful safety auditing of laboratory procedures is recommended. Within the laboratory such samples should be assayed in a category 1 containment cabinet, operators should wear eye-protection gloves and gowns. In all work plastic disposable pipettes should be used; all surfaces and reusable equipment should be sterilised in sodium hypochlorite (Milton) and all benches and possibly contaminated surfaces sterilised immediately.

Further recommendations will be sent in the near future.

Antibody testing

All patients should be antibody tested and this can be arranged by contacting-

Dr. Philip Mortimer,
Central Public Health Laboratory Service,
175 Colindale Avenue
Colindale, London NW9 5HT

Dr. Richard Tedder,
Department of Virology,
School of Pathology,
The Middlesex Hospital Medical School,
Riding House Street,
London W1P 7LD.

The significance of a positive antibody test is not yet fully known. It is however clear that it does not imply immunity. It is estimated that a small percentage only of patients with a positive antibody go on to develop the clinical features of the disease (Between 1 - 10 per cent). It is felt that the household and sexual contacts of the patients should also be tested.

There is a division of opinion as to whether people should be told the results of the test as this may cause major anxieties. The decision to do this must be at the discretion of the Director. Our recent experience of discussions with patient groups suggests that when they appreciate that there is no implications for their clinical care few requested the information.

With regard to testing staff members this is again at the discretion of the Director. There is a good argument for doing this in large Centres as part of an epidemiological study but there seems little point otherwise.

Clinical care

Enclosed are documents (enclosures 6,7) which you may wish to use after talking to patients or their parents. Advice is given about the administration of concentrates in the home and the life style of patients.

Likewise if patients are admitted to the wards there is no routine reason that they should be isolated unless they have AIDS or ARC. In general the same precautions should be taken as for hepatitis B with gloves and aprons worn by nursing staff (enclosure 8).

In all patients great care must be taken to avoid accidental innoculation of health workers with contaminated blood. We lack information in this area, however, local first aid measures such as washing the area and encouraging bleeding are recommended. Because of the hepatitis risk, immune globulin should be given. The accident should be reported and appropriate baseline immunological tests and the presence of HTLV III-Ab measured (enclosure 9).

The Royal College of Nursing has a working party on AIDS currently reporting and further information will be made available.

As an interim measure for information we enclose additional enclosures (10,11,12) which may be of interest and answer specific points about the possibilities of transmission of infection.