Witness Name: Professor Ian M Franklin
Statement No.: WITN4032001
Exhibits: WITN4032002-
WITN4032019
Dated: 2 October 2020

INFECTED BLOOD INQUIRY

WRITTEN STATEMENT OF PROFESSOR IAN MAXWELL FRANKLIN

I provide this statement in response to a request under Rule 9 of the Inquiry Rules 2006 dated 10 August 2020.

I, IAN MAXWELL FRANKLIN will say as follows: -

Section 1: Introduction

This statement is made from my own personal recollection where stated and otherwise with reference to a number of documents that I have seen. This is the first time I have been asked to respond to a Rule 9 request hence I have not had access to any other documents other than those disclosed to me by the Inquiry and those I have managed to source myself. My recollection of dates in particular may be affected by the passage of time since the events in question.

1. *Please set out your name, address, date of birth and professional qualifications.*

   My name is Dr Ian Maxwell Franklin. My address is GRO-C, Bristol. I was born on GRO-C 1949. I hold the following qualifications:

- BSc (Leeds) 1971. Biochemistry in relation to Medicine.
- MB, ChB (Leeds) 1974. Awarded with honours.
- MRCP (UK) 1976, elected FRCP (London) 1990.
- FRCP (Glasgow) 1993.
- FRCP (Edinburgh) 1996.
- MRCPath 1981, elected FRCPath 1993.
- Ph D (London) 1981.

These are set out in my CV attached hereto as **[WITN4032002]**.

2. *Please set out your employment history including the various roles and responsibilities that you have held throughout your career, as well as the dates.*

My employment history including the various roles and responsibilities that I have held throughout my career are set out in my CV. Of most relevance to this Inquiry:

- Between October 1980 and August 1982, I worked as a Senior Registrar in Haematology at University College Hospital, London. I describe my role and responsibilities under question 5 below.

- Between September 1982 and July 1992, I was a Consultant Haematologist at the Queen Elizabeth Hospital in Birmingham (employed by Central Birmingham Health Authority). I was appointed to this post principally to develop a bone marrow transplant programme at the hospital and also due to my experience in sickle cell disease management, of which there were quite a number of patients at the hospital. My experience of haemophilia during the first year in Birmingham was limited to caring for in-patients with bleeds when on call. In September 1983 the then co-director of the Haemophilia Unit, Professor John Stuart, decided to relinquish the role and I replaced him. I will address the details of this aspect of my role in the sections below.

- Between August 1992 and 1996, I was a Consultant Haematologist at Glasgow Royal Infirmary.

- Between 1996 and December 2010, I was Professor of Transfusion Medicine at the University of Glasgow and National Medical & Scientific Director of the Scottish Blood Transfusion Service ('SNBTS').

- Between 8 January 2011 and January 2014, I was Medical & Scientific Director for the Irish Blood Transfusion Service at St James's Hospital in Dublin

3. *Please set out your membership, past or present, of any committees, associations, parties, societies or groups relevant to the Inquiry's Terms of Reference, including the dates of your membership and the nature of your involvement.*

I have held membership of the following committees/associations/parties/ societies/groups relevant to the Inquiry's Terms of Reference:

- Haemophilia Centre Directors Organisation (late 1983-1992): I attended some meetings of this body, but in the main the Birmingham adult centre was represented by Dr Frank Hill. I only recall attending a few meetings, and none after 1992. It had representatives of the Haemophilia Society attending and contributing.

- Haemophilia Reorganisation Working Party: This may have reported to the Department of Health & Social Security as then was, and perhaps also the HCDO, in about 1990. It was chaired by Dr G Savidge from St Thomas's Hospital. I do not recall anything much about it other than it was to consider revising the specific requirements to be a reference centre.

- Microbiological Safety Committee for Blood and Organs ('MSBTO') (unknown-2007): I do recollect attending a few meetings of the MSBTO but despite checking my files I cannot find any clear evidence for this. It is possible that I was invited as an observer. I do remember attending a meeting in or about 2005 when I was concerned that MSBTO might advise Ministers to cease testing for Hepatitis C virus using nucleic acid testing.

- Advisory Committee on the Safety of Blood, Tissues and Organs ('SaBTO') (2007-2010): I was appointed to this body following interview when it was constituted in late 2007. I left when I retired from SNBTS at the end of 2010. I represented the UK blood service medical directors. During my tenure I chaired a sub-group reviewing the introduction of pathogen reduction techniques for fresh blood components, particularly platelets. SaBTO minutes are available to the public on-line.

- UK Joint Professional Advisory Committee (JPAC) of the UK Blood Services (c.1997-2010): This group worked to ensure that each UK blood service was aware of what each other was doing, and aimed to standardise activity as much as possible. Numerous standing advisory committees reported in to the main JPAC.

- JPAC Standing Advisory Committee for Transfusion Transmitted Infection (SAC TTI) (approx. 1997-2010): This is/was a group of experts providing advice to JPAC and also to MSBTO and I recall also to the successor of MSBTO, SaBTO. I was a member of this group for approximately 13 years.

- UK Forum of the four UK Blood Services (c.2000 until 2010): (quarterly meeting of four UK Chief Executives & Medical Directors). This group works to ensure coordination of activities between the 4 UK blood services.

- European Blood Alliance (1998-2013): This body was set up in 1998 to provide a coordinated approach to the impending EU Blood Directive. SNBTS was a founder member and I attended many meetings over the next 15 years, including when I was working for the IBTS in Dublin. It acts as a support and coordinating body.

- Chairman, Co-ordinated Medical Research Study Group on the activities of blood banks related to bone marrow transplantation. In this regard 'blood banks' means blood establishments in the current EU terminology. This group was set up by the European Health Committee (SP-HM Bureau) of the Council of Europe. I was responsible for collecting information via questionnaires from the member countries and collating the responses into a report, which was completed in October 1996.

I have also been a member of various other committees in the field although perhaps not relevant to the Terms of Reference. These are summarised in my CV.

I have been a member of the following learned societies:

- British Society for Haematology (c.1977-2010) - Scientific Secretary and on the committee as above.
- American Association of Blood Banks [AABB] (1998-2010).
- American Society of Hematology [ASH] (c.1988-2010). Member to facilitate attending meetings.
- British Blood Transfusion Society (c.1983-date). Professional requirement. Member only.
- Association of Physicians of Great Britain & Ireland (c.1995-2010). Attended academic meetings.
- International Society of Blood Transfusion. (Dates unknown) I was once a member and attended academic meetings but had no specific role.

4. *Please confirm whether you have provided evidence to, or have been involved in, any other inquiries, investigations, criminal or civil litigation in relation to human immunodeficiency virus ("HIV") and/or hepatitis B virus ("HBV") and/or hepatitis C virus ("HCV") infections and/or variant Creutzfeldt-Jakob disease ("vCJD") in blood and/or blood products. Please provide details of your involvement and copies of any statements or reports which you provided. Please provide an unannotated version of your written statement to the Archer Inquiry. The Inquiry is aware that you were notified by the Medical Protection Society of claims against or involving West Midlands Regional Health Authority (see the enclosed letter of 3 August 1989 by way of example); please explain what involvement you had in responding to those claims.*

Other Inquiries

I provided a written statement to the Archer Inquiry on 19 July 2007 **[ARCH0000443]** and gave oral evidence on 25 July 2007 **[ARCH0000008]**. My statement and the transcript of my evidence are already in the Inquiry's possession. At the time this non-statutory inquiry was struggling to obtain professional witnesses. Myself and other colleagues in SNBTS considered that we should attend to put the service position, which was what was done. I do not have an unannotated copy of my statement to the Archer Inquiry.

I have not been involved in giving evidence to other inquiries. In Scotland I led a group that was preparing evidence to be provided to the Penrose Inquiry. Some of this work involved preparatory work based around a number of 'key cases' identified by Lord Penrose. However, I retired at the end of 2010 from my UK posts and was never called to give evidence to Penrose.

Criminal investigations

I have never been involved in any criminal investigations.

Civil litigation

I only recall one civil case during my time in Birmingham that is relevant to the Inquiry's Terms of Reference. This claim involved the management of a patient with haemophilia who was HIV positive. The claim was focussed on alleged inappropriate use of zidovudine [AZT] in the claimant's treatment for his HIV disease as opposed to the circumstances in which the patient became infected with blood products. This case was due to be heard in 1999 but was withdrawn by the litigants.

I note the letter from Dr S Williams of the MPS **[UBFT0000134]** from 3 August 1989. I have no recollection of this letter, but accept I must have received it. I note the suggestion of litigation for infection with HIV from Factor VIII. Perhaps these cases were withdrawn as I believe there was a requirement to cease litigation if Macfarlane Trust support was to be provided. Certainly I don't remember any other relevant legal action beyond the case I have mentioned above.

GMC investigation

I recall a complaint in 2003 which concerned treatment given to a patient with haemophilia who contracted HIV and Hepatitis C from blood products who alleged he had not given consent for testing. The complaint was levelled at a number of clinicians who had treated the patient. I had never treated the patient, but was criticised by the patient who asserted that I had tested patients in Birmingham without their consent and had lied about it. The case was considered by the GMC Case Examiners and went no further. I received a letter noting that the case had concluded with no action taken on my registration which noted the lack of specific evidence to suggest impairment of fitness to practise.

5. *The Inquiry understands that, prior to taking up a position as a consultant haematologist at the Queen Elizabeth Hospital ("the Birmingham Centre") in 1982, you were a senior registrar in haematology at University College Hospital between 1980 and 1982. Please describe:*

a. *your role and responsibilities at University College Hospital;*

b. *your work at University College Hospital insofar as it involved the care of patients with bleeding disorders and/or transfusion medicine and/or the care of patients infected with hepatitis in consequence of infected blood or blood products.*

Whilst the questions below focus on your time at the Birmingham Centre, if you have relevant information and knowledge concerning the decisions, policies or practices at University College Hospital, please set that out in your statement. Furthermore, if you have any information about the decisions, policies and practices at the Birmingham Centre prior to you taking up your position there in 1982, please also set that out when answering the questions below.

I was a Senior Registrar in Haematology at University College Hospital (UCH) between 1980 and 1982. During my research training and clinical training, I was mainly involved in the development of the bone marrow transplant programme being started by Prof A H Goldstone, as a very junior member of the team. I had no involvement in the management of patients with haemophilia save that I would occasionally have to care for a single patient. I was not involved in decisions about their care pathway which was dealt with by my senior colleagues. I moved on from that position in October 1980.

As Senior Registrar at UCH my first post was at the Hospital for Sick Children, Great Ormond Street. During my 6 months there I gained experience in the management of children with haemophilia having acute joint bleeds. Whilst I would see these patients, this was purely for the purposes of delivering their already planned treatment and I was not involved in any clinical decision making. I had no role in the development of protocols for haemophilia care there nor in the choice of clotting factors for their treatment.

My experience of transfusion medicine was limited to the ordering of blood component therapy for patients with leukaemia, including those undergoing bone marrow transplantation.

I also spent 6 months training at the North London Blood Transfusion Service based at Edgware (since moved to Colindale). Dr John Barbara was an international expert in transfusion transmitted hepatitis B working at the Centre. I received training from him about the risks and management of Hepatitis B. I don't recall anything specific about non-A non-B hepatitis but I was aware of it as an entity.

Section 2: Decisions and actions of the Haemophilia Centre at the Queen Elizabeth Hospital, Birmingham

6. *Please describe the roles, functions and responsibilities of the haemophilia centre at Queen Elizabeth Hospital, Birmingham, during the time that you worked there. Please provide an account of the Centre's history and establishment and its activities and facilities during this time.*

I started work as Consultant Haematologist at the Queen Elizabeth Hospital (QEH), Birmingham on 1 September 1982.

For the first 12 months my involvement in the Haemophilia Centre ('the Centre') was limited to caring for patients with bleeding disorders while on call. My other responsibilities included lab work, bone marrow transplants, training and research.

I don't have any knowledge of the history of the Centre. During my time, there were approximately 400 haemophilia patients registered, of which the great majority were men. In a 1986 document requesting revenue support it states that we had 423 patients registered **[UBFT0000252]**.

The Centre consisted of a single treatment room in which were kept the case notes of patients 'registered' with the Unit. My recollection is that our staff

consisted of senior house officers, registrars and senior registrars. I was one of three consultant haematologists working at the Centre. During the working day the treatment room was staffed by a single nurse of Sister grade. The Sister was responsible for issuing supplies of home treatment, recording the batches and assessing the progress of patients on home treatment. Any issues would be referred to medical staff who during the day would likely be registrar or consultant grades.

Registered haemophilia patients would be seen at the out-patient clinic – one half day per week - to manage their long-term care particularly regarding joint damage. Dr Hill and I would see patients who had pre-booked out-patient appointments in the morning. In the afternoon we would discuss ongoing active patient episodes in the treatment room with the nursing Sister and any registrars able to attend. There would also be another half day to deal with administrative matters. Thus myself and Dr Hill together worked a total of 2.5 days per week in the Unit.

In terms of urgent care, registered haemophilia patients were also able to attend at any time of night or day for a bleeding episode. They would then be seen by the on-call doctor residing in the hospital who may then contact the on-call consultant for advice. This contact would depend on the severity of the bleed and the experience of the resident doctor. There were three consultants providing on call for all haematology activities at the QEH – Professor John Stuart, Dr Brian Boughton and myself. I would therefore be covering one third of evenings and weeknights, and one third of weekends. I would therefore also see patients on an ad hoc basis when they attended for urgent care.

7. *Please identify senior colleagues at the Birmingham Centre and their roles and responsibilities during the time that you worked there.*

I joined the Centre in September 1982 when Professor John Stuart was the co-director of the Haemophilia Unit with Dr Frank G H Hill. In September 1983, Professor Stuart stood down as co-director and I took over.

Dr Hill was an experienced haematologist as he was already co-director of the Centre when I joined and also had a research interest in haemophilia. I would say that at the time that I joined, he was more experienced than myself. Dr Hill also worked at the Birmingham Children's Hospital where the patients would be admitted under his care.

The other two consultants at QEH were Professor J Stuart and Dr B J Boughton, who had academic appointments with the University of Birmingham and so contributed perhaps one whole time equivalent to the NHS service.

8. *In your statement to the Archer Inquiry [ARCH0000443] you refer to receiving support from an additional colleague, "who contributed about one day per week in time, but more in intellectual input". Please confirm if that was Dr Frank Hill. If so, please describe Dr Hill's role at the Birmingham Centre, and, when answering the questions below, please provide details of his contribution to the decisions and actions you describe.*

I confirm that it was Dr Frank Hill I was referring to when I gave evidence to the Archer Inquiry.

The reference to 'more in intellectual input' relates to the fact that, as described above, Dr Hill had more experience in the management of haemophilia when I started working at the Centre which I would be guided by. For instance, he explained to me the need to question suppliers of commercial US factor concentrates about where their donations were collected, to ensure prison donors, for example, were not used. This is because prison donors had a higher incidence of hepatitis. He was very concerned about product safety from my earliest experience working with him. This was reflected in the batch dedication system which he implemented and which was in use before I started at the Centre. When HIV/AIDS became a clinical issue, as co-directors we discussed our approach and reached agreement.

9. *Please describe:*

   a. *your role and responsibilities at the Birmingham Centre and how, if applicable, this changed over time;*

   b. *your work at the Birmingham Centre insofar as it involved the care of patients with bleeding disorders and/or patients infected with hepatitis and/or HIV in consequence of infected blood or blood products.*

I have addressed my roles and responsibilities at the Birmingham Centre above. When it became clear that many of our patients were HIV antibody positive and some began developing evidence of AIDS, I continued to care for them and we discussed how they were to be managed. For instance, there was consideration of them being transferred to the infectious disease service at East Birmingham Hospital, however, this would have meant fragmenting the care of the bleeding disorder from their HIV disease – and perhaps the non-A, non-B hepatitis. We therefore agreed that it would be more appropriate for them to be managed alongside their haemophilia care at the Centre.

10. *Approximately how many patients with bleeding disorders were under the care of the Birmingham Centre when you began to work there in 1982 and over the years that followed? (If you are able to give exact rather than approximate figures, please do so).*

The Centre had 432 registered patients at the QEH in 1986, of which about 100 were severely affected and attended regularly. It was this group of 100 that had the most men with HIV, some 65. These numbers would change over time due to people moving away and coming to Birmingham, as well as young men transferring from the Children's Hospital. It was some years later that we started losing men from AIDS.

11. *Did you have any involvement with the care of haemophiliac patients at Birmingham Children's Hospital? If so, please provide details.*

I never had any involvement in the care of any children at Birmingham Children's Hospital.

12. *To the best of your knowledge, what decisions and actions were taken, and what policies were formulated, by the Birmingham Centre and/or by you and/or Dr Hill, regarding the selection, purchase and use of blood products (in particular factor concentrates) during the time that you worked there? In addressing this issue, please answer the following questions:*

    a. *How, and on what basis, were decisions made about the selection and purchase of blood products?*
    b. *What were the reasons or considerations that led to the choice of one product over another?*
    c. *What role did commercial and/or financial considerations play?*
    d. *What involvement did you have?*

In the early years of my time working in the Haemophilia Unit at QEH, I recall there was a committee of doctors in the region involved in haemophilia care, that determined which clotting factor products were to be bought. These meetings would have been attended by consultant haematologists responsible for haemophilia centres around the region, such as Wolverhampton, Worcester, Coventry and Stoke-on-Trent.

Our preference in terms of selection was for UK (volunteer) donor products over US (paid) donor products as there was a strong sense that UK products were safer. This was because in the US, there was evidence of a higher rate of post transfusion hepatitis B. Despite this, I have a recollection that some senior UK figures in bleeding disorders actually lobbied for products to be imported from the USA in the 1970s, due to a lack of locally derived products.

There was a shortage of UK products for all patients in England and Wales hence when we had no choice but to use US commercial products, the knowledge of where the plasma had been collected from in the US became key as we would want to avoid, for example, prison donors where the risk of

infection with hepatitis was greater. There were also a number of urban areas in the US where the risk was higher.

The commercial and financial aspects did not really play any part in the decision making save that in the 1980s money was tight in the NHS so we had to make savings where possible. British products were supplied free of charge but I do not recall how much difference there was between individual commercial product prices.

I would attend these regional meetings and try to obtain as much NHS product as possible for our patients but there was not enough to go around. There was certainly a preference to provide the NHS product to children. I believe that haemophilia was a regionally funded service which for Birmingham would be the West Midlands Regional Health Authority [WMRHA]. That meant we had to seek more funding from the region.

My involvement was as one haematologist amongst many.

13. *What particular products were used for treating patients at the Birmingham Centre, over what period of time and for which categories of patients?*

The particular products used for treating patients at the Centre depended on availability – which changed over time – previous treatment history, and also the specific reason for treatment being needed. As mentioned, patients would be kept on the same product, and a single batch for as long as possible until it ran out. What NHS product we had was mainly used for patients with mild haemophilia, who had received little product, or for young men transferring from the Children's Hospital to the adult unit who had been on NHS / BPL product. We would try to keep them on it. This ideal might change if a major operation was needed and there was insufficient of the original treatment material available. Then we might have to change to a new, more readily available product which would likely be US commercial concentrate.

- Cryoprecipitate ('cryo'). This is a single donor product prepared from whole blood or plasma donors in England or Wales which contains the majority of the clotting Factor VIII. It has to be thawed out from frozen in a water-bath, which is cumbersome as one adult man may need between 10 to 20 packs per treatment. As such it can be useful for smaller bleeds that are likely to resolve quickly. For more severe bleeds or to cover surgery the volumes needed to be infused makes it difficult to tolerate, especially in smaller individuals. But, cryo did have a much lower risk of transmitting HIV, because it was a locally derived product used in relatively small pools in treatment. For treating an adult haemophiliac over a period of years the risk of acquiring hepatitis C from cryo treatment would still have been very high, due to its prevalence in the donor population prior to testing being introduced in 1991. Cryo was the main treatment for people with von Willebrand's disease, which is a bleeding disorder caused by a deficiency in a protein associated with the Factor VIII molecule.

- DDAVP. Also known as Desmopressin, this is a form of vasopressin, an intrinsic hormone of the body, which stimulates the release of Factor VIII from the lining of blood vessels. As a sterile pharmaceutical it is safe, but only works in milder forms of haemophilia and then for only a brief period, perhaps a few days. This is because it is releasing current stores of Factor VIII and someone with even mild haemophilia will be unable to replenish these stores.

- Factor VIII [8] concentrate. This is a freeze-dried purer form of Factor VIII in a vial that can be stored in a domestic refrigerator or even at room temperature for short periods. When introduced in the mid to late-1970s it was a revolution in haemophilia care since normal levels of Factor VIII could be achieved in a person with a manageable infusion volume with the convenience of portability. Its effectivity did overshadow the obvious disadvantage that on first exposure to non-pathogen inactivated Factor VIII, nearly all recipients developed abnormal liver function tests

and many became jaundiced. Although the tests usually returned to normal they were in fact evidence of hepatitis C contamination of the clotting factors and almost all recipients went on to develop chronic hepatitis C infection. Almost all Haemophilia Units in England continued with concentrates.

- Factor IX [9] concentrate. This was a concentrate of Factor IX used to treat Factor IX deficiency, also known as Christmas Disease after the surname of an early patient. It had a lower, but not no risk of HIV transmission.

- Heat treated Factor VIII. This was introduced after the concerns over HIV transmission from 1985 onwards. It was HIV safe but not hepatitis C safe until a more rigorous heat treatment process was applied, initially by BPL in its Factor 8Y product towards the end of 1986, as I recall, although initially not in great quantity.

- Solvent detergent [SD] treated Factor VIII. This was available I recall for a fairly brief period because double virus inactivated product came along. I do not recall exactly when but probably during 1985. I have a document from Dr Hill from January 1986 **[WITN4032003]** stating no non-heat treated commercial Factor VIII concentrates were available after January 1985.

- SD & Heat treated Factor VIII. This was as I recall made by some companies. I do not recall when these products were available.

- Monoclate. This was a product made by Armour, I think. It was a monoclonal antibody purified Factor VIII. I think that was being introduced about the time I left Birmingham for Glasgow.

- Some patients with very low intrinsic levels of Factor VIII – very severe haemophiliacs – can recognise therapeutic Factor VIII as a foreign

antigen and produce antibodies to it, inhibiting the normal effective of Factor VIII. This makes treatment of such haemophilia very difficult indeed. There were some boutique products available which attempted to by-pass the need for Factor VIII. These included Factor VIII from pigs [porcine Factor VIII] and a treated human product called Factor Eight Inhibitor Bypassing Activity [FEIBA]. Both were expensive, needed experience in their use, and required the approval, and usually specific on site supervision, by myself or Dr Hill, for their use.

- For dental work I remember using tranexamic acid and/or EACA, both of which help stabilise blood clots and can reduce bleeding. We may have used fibrin glue, but I'm not sure.

14. *You stated in your evidence to the Archer Inquiry [ARCH0000443, ARCH0000008] that all of your colleagues preferred to use UK-derived Factor VIII but that there was never enough UK product.*

    a. *What was the reason for this preference?*

- Volunteer non-remunerated blood and plasma donors [VNRD]. In the UK blood donors were always unpaid in the NHS era, but this was not the case in the USA. The United States had a large market for the production and sale of plasma products that was never replicated in the UK. Plasma donors in the US were recruited specifically to give plasma, and these were paid. In January 1975 World in Action ran two programmes about paid donors called 'Blood Money'**[WITN4032004]**. This showed very poor, down and out people giving plasma to companies which then were made into Factor VIII increasing the risk of hepatitis. This 'skid row donors' scandal certainly influenced how we wished to treat all our patients. The commercialisation of plasma in the USA meant there was ample product but from paid plasma donors. In the USA there are two parallel transfusion approaches. Whole blood, producing red cell, platelet and frozen fresh plasma blood components

have been collected from un-paid donors since the requirement to label components if they are from paid donors. Plasma donations are collected from paid donors. Although paying a donor means one can perhaps ask more searching questions there is always the concern that information will be held back about life-style of the donor. Some companies continued with collecting plasma in prisons, I believe, and in poorer areas. This is known to increase risk.

- The other aspect of risk in plasma products is pool size. In the UK, in BPL and SNBTS in Scotland, pool sizes were around 5000 – 7000 donations per batch. That sounds a lot, and it is, but in the USA batch sizes of 20,000 were not uncommon. Smaller pool sizes were always preferred, in the hope this would have reduced the risk from hepatitis generally. However, it later became clear that for pathogens with a high prevalence in donors prior to testing, such as hepatitis C, this doesn't make a huge difference. But for low prevalence pathogens like HIV it can make a big difference, especially when the prevalence in two populations is already markedly different, such as between the US and UK for HIV around the early 1980s.

- National self-sufficiency in blood and plasma products. There had been a doctrine that achieving self-sufficiency in plasma products would be a good thing, going back to 1977 when Dr David Owen was a health minister. The idea that locally donated plasma and locally made products were the ideal was established then in addition to the benefits of VNRD. This issue is considered at length in the Department of Health document of 2006 'Self-sufficiency in blood products in England & Wales - A chronology from 1973 to 1991' **[WITN4032005]**.

b. *Was it also your preference to use UK-derived Factor VIII?*

It would always have been my preference to use UK derived product.

c. *Your Archer statement [ARCH0000443] refers to regional meetings of haematologists to discuss the allocation of NHS product. Please provide further details of those meetings, when and how often they occurred, who attended and what was discussed and decided.*

I believe I have addressed this point above.

d. *Did you or your colleagues raise your concerns about the lack of NHS product with anyone? If so please provide details.*

I think we made it clear what we would like. My correspondence with Dr Lane at BPL for example. My influence at that time, if any, was local to Birmingham.

15. *What impact did the availability or non-availability of types of products have on decisions as to what treatment to provide to patients? Please consider the enclosed letter dated 24 May 1984 from you to Dr Lane [BPLL0000853_002], together with Dr Lane's response to you dated 6 June 1984 [BPLL0000853_001], and answer the following questions:*

a. *You report that a month or so previously you had been requested to change some patients to NHS product from commercial material due to a glut of NHS material at the Regional Transfusion Centre. Who asked you to make this change and did you do so?*

I infer that switching more patients due to there being more UK product followed a request from Dr Ala at the Regional Transfusion Centre, although it is possible it came from the committee dealing with the allocation of different products to the local centres. Since there was a preference for UK derived product I was probably pleased that we could offer BPL product to more patients. The letter to Dr Lane speaks for itself I think. It was disappointing to find that the increase in BPL product was not sustained. I was very unhappy on behalf of my patients.

b. *You refer to a sudden fall in supplies of NHS material, with the result that you would now have to treat patients with commercial material who may never have been exposed to it in the past. Did this result in you treating patients with commercial products for the first time? As far as you can recall, how many patients were affected by this sudden fall in supply?*

I think the cause of the reduction in supply of BPL product to the West Midlands is described by Dr Lane. On reading this letter carefully the difference in supply was not huge and so it is likely this would only have affected a few patients. I am afraid I cannot be more specific.

c. *What if any efforts were made, whether by BPL, the Regional Transfusion Centre, the Birmingham Centre or otherwise, to resolve this problem of sudden swings in supplies?*

Dr Lane describes the capacity of BPL increasing by more than three times from 30 million to 100 million units of Factor VIII annually, provided the investment in regional transfusion centres occurred. This investment was needed to ensure the extra plasma could be collected and sent to BPL. So I would have hoped that supplies would only have increased thereafter. I am not sure whether that investment ever took place. Also, the supply was disrupted when the non-heat treated products were withdrawn early in 1985.

16. *What was the relationship between you/the Birmingham Centre and the pharmaceutical companies manufacturing/supplying blood products? What influence did that relationship have on the Centre's/yours decisions and actions? You may wish to consider the enclosed letters from a Cutter sales representative [BAYP0000009_032, BAYP0000009_048], referring to a meeting with you to discuss a particular product. To what extent did such meetings take place with representatives of pharmaceutical companies and over what period of time?*

There was never a sufficient amount of UK product available to treat all our patients, which would have been our preferred approach. Therefore we had to obtain commercial material which meant US derived concentrates of Factor VIII. As mentioned earlier, the 'skid row donor' scandals of the previous decade made us wary of US products so we sought extensive information about how the US products were produced. These points are addressed in the initial letter from Anne Walton of Cutter, dated 22 October 1986. Clearly I met with Ms Walton to discuss these issues. Who else may have been present I have no recollection of, nor do I recall the meeting. Obviously some questions arose which the second letter aims to address. I don't recall those papers or the data provided at this distance in time. I assume that such meetings took place periodically and over quite a period of time.

Although I have no records to consult I think it highly likely that such meetings took place over years as plasma products were further developed and improved safety measures were introduced.

There was a period between the withdrawal of non-heat treated products, and the introduction of heat-treated, HIV safe products, when the normal supply system may have broken down. From memory, we (Dr Hill and myself) may have had to negotiate small amounts of product for our own Unit, just to maintain emergency treatment.

17. *If the responsibility for the selection and purchase of blood products lay with an organisation other than the Birmingham Centre, please specify which organisation and provide as much information as you can about its decision-making.*

As described earlier, there was a regional committee that considered the allocation of products and I assume, though do not recall clearly, that this group dealt with the tendering too. I do not think that the Birmingham centre was responsible on its own for the process, but as the largest users we would have had a say in the discussion.

18. *How were decisions taken as to which products to use for individual patients? What involvement did you have in such decisions? To what extent, if at all, were patients offered a choice, or involved in decisions, as to which products to use?*

Decisions were taken on the basis of an assessment of risk and availability. We preferred UK derived products but there wasn't enough to treat everybody. Rather than spread each product around everyone patients received, ideally, one product and limited to one batch of that product at a time. I am sure I was involved in those decisions. Patients were aware of the short fall in UK product. Heavy users would have been treated with US products and probably not offered a choice unless it was not to have treatment – not a realistic option. There wasn't much of a choice, unless there was a person with mild haemophilia needing elective surgery where we could delay. Such patients would ideally have received UK derived factors but there were periods when none was available at all, not just a shortage of supply. Our general approach to treatment is provided in **[UBFT0000263]** from 7 January 1986.

19. *What alternative treatments to factor concentrates were available in the 1970s and 1980s for people with bleeding disorders?*

I refer to my response to question 13 above outlining what products were available in Birmingham.

Another product, which was not being used in Birmingham to treat haemophilia during my time there was Plasma [Fresh frozen plasma]. Plasma can be collected from whole blood donations by centrifugation and removing the straw coloured liquid which is the plasma. This contains the clotting factors, and to preserve these it must be frozen promptly after collection. It is also possible to collect pure plasma from donors by a system called apheresis. This is the main system used to collect plasma to be sent to a fractionation plant where concentrates are made. Plasma was the earlier

treatment for haemophilia bleeding but insufficient factors can be given for effective treatment. In the plasma era life expectancy with severe haemophilia was short, joint damage severe.

20. *What were, in your view, the advantages and disadvantages of those alternative treatments? What use did you/the Birmingham Centre make of them? Do you consider that they should have been used in preference to factor concentrates so as to reduce the risk of infection? If not, why?*

I have provided my recollection of the advantages and disadvantages above. From a statistical point of view, using cryo to treat all the adults would have been difficult and would have had no or minimal effect on the proportion of men infected with hepatitis C. This virus was endemic in the general population of England at about 1:100 people. Blood donors had about 1/10th of that risk at about 1:1000: Crawford RJ et al, '*Prevalence and epidemiological characteristics of hepatitis C in Scottish blood donors*' (*Transfusion Medicine*, 1994, 4, 121-124) **[WITN4032006]**, although in London in 1991 it was approx. 1:400 in one study: Contreras M et al, '*Low incidence of non-A, non-B post-transfusion hepatitis in London confirmed by hepatitis C virus serology*' (*Lancet*, 1991, 337(8744), 753-757) **[WITN4032007]**. Using cryo over many years would have led to most being infected. The Department of Health document on self-sufficiency from 2006 (link at Q.14A above) acknowledges that HCV would not have been prevented because it was endemic in the UK. HIV was another matter. My memory suggests that we were led by advice from the UKHCDO that patients should continue using concentrates because the risk of death from e.g. cerebral haemorrhage was greater than from HIV. I recall a letter, perhaps a newsletter even from the Haemophilia Society, stating that at the time **[WITN4032008]**. I think it was Dr Bloom from Cardiff who was a / the medical advisor to the Society. Sadly, that proved to be wrong. HIV turned out to be a much worse problem than was perceived possible in 1983/84.

21. *What was the Birmingham Centre's policy and approach as regards the use of cryoprecipitate for the treatment of patients with bleeding disorders?*

a. *Did that policy and approach change over time and if so how?*

b. *How, if at all, was the policy and approach informed by discussions had with external parties?*

I do not have any good recollection of this. There were periods when we had real shortages of Factor VIII concentrates. I recall that we used cryo on a few occasions for patients who previously might have been treated with concentrate, to cover surgery.

22. *What was the Birmingham Centre's policy and approach in relation to home treatment? Did the policy and approach change over time and if so how?*

Home treatment was established at the QEH Haemophilia Unit before I started having responsibility for it in late 1983. Patients had to have eligibility criteria, as I recall. This would include the ability to take responsibility for their treatment, to record it, to return records of their treatment and to be able to store the treatment correctly. They had to be able to inject themselves, or have a family member who could do it. In the main, too, they would have had severe haemophilia that needed quite frequent treatment so that product did not go out of date and that their proficiency at self-treatment remained good by regular practice. I recall that home treatment had to be suspended on at least one occasion due to product withdrawals causing a shortage for urgent treatment. This meant we could not afford to have lots of product inaccessible in peoples' homes.

23. *In your statement to the Archer Inquiry [ARCH0000443], you describe a "well-established system of product and batch dedication for patients on home treatment – that is, one person would receive only one product and would remain on the same batch as long as that batch was available". What was the reason for this system (which, as the Inquiry understands the position, predated your arrival but which you decided to continue) and what were its advantages and disadvantages (if any)?*

Batch dedication was indeed in place before 1983. I don't know its prior history. It has advantages for the patient, and for the centre if well organised. It should reduce the exposure of any one patient to the total number of plasma donors. For relatively rare risks, like HIV, this would reduce the risk of exposure. For more common risks, like hepatitis C, it doesn't make much difference. Batch dedication also helps in the case of a problem being identified with one specific batch, as it reduces the number of patients who may need to be recalled for investigation.

24. *What was the Birmingham Centre's policy and approach in relation to prophylactic treatment? Did the policy and approach change over time and if so how?*

I don't have any recollection of prophylactic treatment being introduced in the adult Centre in Birmingham when I was there. I knew of it, and wonder whether it was being started at the Children's Hospital. Due to the smaller body weight of children it would need less factor concentrate to initiate such a programme of treatment.

25. *What was the Birmingham Centre's policy and approach in relation to the use of factor concentrates for children (if and to the extent that children were treated there)? Did the policy and approach change over time and if so how?*

I did not treat children with haemophilia and was not responsible for the Haemophilia Unit at Birmingham Children's Hospital.

26. *To what extent, and why, were people with mild or moderate bleeding disorders treated with factor concentrates?*

I don't recall a specific policy. Mild or moderate patients would only have had factor concentrates if they needed quite major surgery where haemostasis could not be achieved with cryo or DDAVP.

27. *What if any viruses or infections, other than HIV, HCV and HBV, were transmitted to patients at the Birmingham Centre in consequence of the use of blood products? (You may wish to refer to the letter dated 12 May 2004 to Charles Kennedy MP [MACK0001952], in which you listed a number of blood borne viruses known to have been transmitted to people with haemophilia).*

I think the letter to the late Charles Kennedy MP is self-explanatory. I don't have any recollection of specific patients in Birmingham being infected with specific other viruses.

Section 3: Knowledge of, and response to, risk

General

28. *When you began work as a consultant haematologist at the Birmingham Centre in 1982, what did you know and understand about the risks of infection associated with blood and/or blood products? What were the sources of your knowledge? How did your knowledge and understanding develop over time?*

I was familiar with the risks of infection with hepatitis B from my training with Dr John Barbara at the North London Blood Transfusion Centre from 1 March to 30 September 30 1981.

Non-A, non-B hepatitis was also a known entity but at that time considered to be mild and relatively benign. Unfortunately this reflected a lack of knowledge of the full long-term history of non-A non-B hepatitis. It was often referred to as 'transaminitis' which refers to the abnormal liver transaminase tests in the absence of other evidence of liver disease.

I would have learned more about non-A, non-B hepatitis from the reports by Dr Craske at the UKHCDO. The paper from Manchester: Stevens RF et al, '*Liver disease in haemophiliacs: an overstated problem?*' (*British Journal of Haematology*, December 1983, 55(4), 649-655) **[WITN4032009]** had been reassuring but the report from Sheffield a few years later: Hay CRM et al,

'*Progressive liver disease in haemophilia: an understated problem?*' (*Lancet*, 29 June 1985, 325, 8444, 1495-1498) **[WITN4032010]** was much more concerning and led to us taking a more serious view. But there was still no treatment available.

Diseases of the Liver & Biliary System by Dame Sheila Sherlock is a book I did consult. The 6th edition (Blackwell, 1981, pp.290-291) states that 'patients with acute non-A, non-B hepatitis progress to chronic liver disease. The incidence of chronicity seems to be about 30-40%. Treatment consisted of "Reassurance and regular supervision at approximately three to six month intervals are required." Which is what we were doing in the Birmingham haemophilia centre.

My understanding grew considerably over time when HIV became a recognised additional risk factor for severe liver disease, and the impact of non-A, non-B hepatitis in men with haemophilia particularly when associated with AIDS.

29. *What advisory and decision-making structures were in place, or were put in place at the Birmingham Centre or in the West Midlands region, to consider and assess the risks of infection associated with the use of blood and/or blood products?*

I don't recall any local advisory or decision making structures. I have mentioned advice from senior haemophilia experts, in the form of newsletters and UKHCDO minutes. A Joint Care Planning Team on AIDS for the then four Birmingham District Health Authorities had its first meeting on 15 January 1987 **[UBFT0000284]** by which time HIV and hepatitis C safe plasma products were available. This group was not looking at blood / blood product safety, but may have had a role in service provision to patients.

30. *What was your understanding of the relative risks of infection from (i) the use of commercially supplied blood products, and (ii) the use of NHS blood products?*

We preferred to use NHS blood products because they were from UK unpaid donors. Transfusion associated hepatitis was known to be far more common in the USA, and their use of paid plasma donors was a problem. But the failure of the UK to achieve self-sufficiency in plasma products in England & Wales meant if concentrates were to be used the majority had to come from the USA.

Hepatitis

31. *When you began work as a consultant haematologist at the Birmingham Centre, what was your knowledge and understanding of the risks of the transmission of hepatitis (including hepatitis B and NANB hepatitis) from blood and blood products? What were the sources of your knowledge? How did that knowledge and understanding develop over time?*

I refer to my response to question 28 above.

32. *What, if any, further enquiries and/or investigations did you and/or the Birmingham Centre carry out or cause to be carried out in respect of the risks of the transmission of hepatitis? What information was obtained as a result?*

I did not do any studies regarding the specific risk of hepatitis from the factor concentrates. Enquiries were made of the commercial suppliers to attempt to reduce risk.

When patients attended the haemophilia clinic we would check their liver enzyme results and hepatitis B status. Hepatitis B negative patients were offered hepatitis B vaccination.

33. *What liver function tests and/or other forms of monitoring were undertaken at the Birmingham Centre and how did that change over time? What was the purpose of such testing and monitoring? What information about results was shared and discussed with patients?*

Liver function tests were carried out routinely at out-patient clinic visits, and previous results discussed with patients. These tests included bilirubin, AST and ALT. I remember that we would have been looking for evidence of clinical liver disease. Results would have been explained in general terms. Better or worse. Mild changes. It is unlikely that precise numerical results were provided but I believe I would have done so if asked. Advice about alcohol use was provided. The pain of haemophilic arthritis responds to alcohol so we were keen to advise patients not to use alcohol as a 'treatment.' Although in the early 1980s management of liver disease was limited the Queen Elizabeth Hospital had a very active liver unit and transplant programme. I don't recall specific patients but I suspect we did refer them, or perhaps asked the liver team to see patients while they were in hospital.

34. *What, if any, actions did you and/or the Birmingham Centre take to reduce the risk to patients of being infected with hepatitis (of any kind)?*

The hepatitis B vaccine was offered once it became available. There wasn't much we could do about non-A, non-B hepatitis, as this (hepatitis C as it became known), was present in all batches of Factor VIII concentrate. For mild cases untreated with concentrate, cryoprecipitate or DDAVP would have been preferred if it was suitable to cover their bleeding problem.

35. *What was your understanding of the nature and severity of the different forms of blood borne viral hepatitis and how did that understanding develop over time?*

Hepatitis B was known to be a potentially serious condition associated with cirrhosis and liver cancer. There was some debate about non-A, non-B hepatitis which is well described in the final report of the Penrose Inquiry, 2015, p.673 et seq. Post-transfusion hepatitis was well known to be common in the USA but much less so – or believed to be less so – in the UK. When it became clear that many of the men in our clinic were HIV positive I did spend some time reviewing their notes to gain a better understanding of what might

have been happening and whether there was any evidence of a 'sero-conversion' illness at the time of HIV exposure that would help when they were infected and, perhaps, by which plasma product. This would have been some time in 1985, when we were receiving HTLV-III positive results. With, I recall, one or two exceptions sero-conversion illness wasn't identifiable but the striking feature to me was the high number of patients who developed acute hepatitis with or without jaundice on their first exposure to Factor VIII concentrate in the 1970s. That observation made me more concerned about the possible serious nature of non-A, non-B hepatitis. Although that did not provide a solution in management terms.

HIV and AIDS

36. *What was your knowledge and understanding of HIV (HTLV-III) and AIDS and in particular of the risks of transmission from blood and blood products during your time working at the Birmingham Centre? How did your knowledge and understanding develop over time?*

There was certainly general awareness in medical circles of the early reports from the USA about the 'epidemic' of pneumocystis carinii pneumonia [PCP] in otherwise healthy young men. These cases of PCP turned out to be the first manifestation of AIDS. By 1982 there had been a few cases of transfusion associated AIDS in the USA and also a few men with haemophilia had the condition. I recall there was a man in the Cardiff Haemophilia Centre who either had immune deficiency or died with AIDS in 1983, and this really started the concern amongst patients – and staff – at the QEH Haemophilia Centre. Certainly by the time I became co-director of the QEH Haemophilia Unit towards the end of 1983 AIDS was a major concern. However, as described in the minutes of the UKHCDO meeting in October 1983 **[PRSE0004440]** Professor Bloom stated that there 'was no proof that the commercial concentrates were the cause of AIDS.' That position became less tenable over the ensuing months.

37. *How and when did you first become aware that there might be an association between AIDS and the use of blood products?*

For transfusion associated AIDS, late 1982 in the USA. For plasma products in patients in the UK during 1983. I found out via medical journals, news items and word of mouth.

38. *In your statement to the Archer Inquiry [ARCH0000443] you refer to a number of sources of information: advice from reference centres; advice from the Haemophilia Society; an editorial in the New England Journal of Medicine; advice from the World Federation of Hemophilia; and an editorial in the British Medical Journal.Were these materials that you read and considered contemporaneously? What other sources of information did you read and consider at the time?*

These materials I referred to in my Archer evidence I read at the time. Reading articles in journals was insufficient because of the delay in publication in a time before e-publication and the internet. So personal communications like newsletters were more important then. Communications like the MMWR [*The Morbidity and Mortality Weekly Report* (*MMWR*)] of the US Centers for Disease Control and Prevention (CDC) were more up to date, and I read these. Attending meetings, or receiving minutes or feedback from colleagues, such as the UKHCDO would give more real time information.

39. *What, if any, enquiries and/or investigations did you and/or the Birmingham Centre carry out or cause to be carried out in respect of the risks of transmission of HIV or AIDS? What information was obtained as a result?*

I am not sure that there were any specific investigations. I was not involved in sending samples off for testing, for example.

40. *What, if any, actions did you and/or the Birmingham Centre take to reduce the risk to your patients of being infected with HIV?*

Batch dedication of treatment was one. We did try to avoid factor concentrates for milder cases, or by deferring surgery. I cannot remember specific examples. We could have stopped using all concentrates, at the cost of risking more deaths. This was not the advice of the UKHCDO.

Suspending home treatment and treating only life-threatening bleeds may have been an option. This latter did have to be implemented when UK non-heated product was withdrawn and we had very little Factor VIII concentrate available. By that time, which would have been late 1983 through to early 1985, it is not clear what benefit that would have had. G C White (2010) presented US data on the annual numbers of infections with HIV in persons with haemophilia suggest the great majority were infected by 1982.

41. *Did the Birmingham Centre continue to use factor concentrates to treat patients, after becoming aware of the possible risks of infection of HIV? Why?*

Yes we did, together with Manchester, Cardiff, St Thomas's, Oxford, etc. The alternatives, stated above at 40, were considered to be a greater risk due to death from haemorrhage.

Response to risk

42. *Did you or your colleagues at the Birmingham Centre take steps to ensure that patients were informed and educated about the risks of hepatitis and HIV? If so, what steps?*

Issues such as liver function tests and the significance of non-A, non-B hepatitis were routinely discussed at out-patient clinic reviews, together with an assessment of joints and other relevant bleeding history. When concern about AIDS arose this was a major topic in all consultations. We advised all patients to use barrier contraception as a risk reduction measure for transmission to partners. We explained the risks as were known at the time verbally in clinic, in the treatment room and on the wards.

43. *At the 14th meeting of Haemophilia Centre Directors on 17 October 1983 [PRSE0004440], attended by you, Dr Chisholm raised the problem of patients refusing to take commercial Factor VIII concentrate because of the AIDS scare, queried whether directors should revert to using cryoprecipitate for home therapy, and referred to problems in her region getting large amounts of commercial concentrates, whereas she could get unlimited amounts of cryoprecipitate. Other directors reported the same problem.*

    a. *Please set out what you recall of this discussion. What if any contribution did you make to it?*

        I remember attending the meeting but I do not recall the issue raised by Dr Chisholm.

    b. *Did patients raise with you concerns about factor concentrates, because of the AIDS scare? If so, when and what was your response?*

        Patients regularly raised their concerns about the safety of their treatments, but I am unsure if this was as early as 1983. My response would have been to be truthful with them, but I have no record of what I would actually have said. There was great uncertainty at the time about AIDS, what it was caused by, and how widespread it would be. I am sure I would have expressed my own uncertainty.

    c. *Did you (like Dr Chisholm and other unnamed directors) have regional problems in getting sufficient amounts of commercial concentrates? If so, please describe them.*

        We never had enough NHS concentrates, as per correspondence with Dr Lane at BPL. I don't recall a problem with US commercial material supply until there were product recalls and withdrawals as virus inactivation steps were developed and then implemented. This was in 1985/86 I recall.

d. *Were you (like Dr Chisholm and other unnamed directors) able to get unlimited amounts of cryoprecipitate?*

I don't know, and I'm not sure that I asked. That would have been a major strategic change because if our local transfusion centre had diverted cryo to us there would have been even less NHS factor VIII available. Factor VIII concentrate is made from plasma from which cryo would also be made. It's either or, not both. My guess is we would have preferred to have NHS concentrate over cryo but I don't recall any discussion about that.

e. *The decision recorded in the minutes of the meeting was that patients should not be encouraged to go over to cryoprecipitate for home therapy but should continue to receive NHS or commercial concentrates. Did you agree or disagree with this decision?*

I accepted the prevailing view from the meeting. Going over to cryoprecipitate for home therapy would certainly have needed a lot of cryoprecipitate.

44. *When did you/the Birmingham Centre begin to use heat treated factor products and for which categories of patients? (You may wish to consider your letter to Mr Snape at BPL dated 13 March 1985 [BPLL0010581]).*

To be honest, I don't know. The letter to Dr Snape suggests he is offering a modest amount of heated material for a study or for patients who have never had commercial US product. I suspect this was the product later known as 8Y that proved to be safe from both HIV and hepatitis C. I think 8Y was introduced towards the end of 1985. Once we got heat-treated NHS product the same constraints on supply would have been present, except that as yields were lower - less factor VIII from the same amount of source plasma - we probably had less. I have no recollection of which categories of patients. Probably the same as were receiving NHS product before the withdrawal of non-heat treated.

45. *Please describe the steps taken to recall unheated products.*

I know that un-heated products were recalled but I was away on holiday when that happened. I remember that Dr Hill and the nurse spent some days over a weekend managing the recall and ensuring it was all returned. I don't remember exactly when that was.

46. *On 30 September 1985 Dr Ala of the Regional Blood Transfusion Centre notified you that you had received 10 boxes of unheated NHS Factor VIII Batch HL 2882 on 25 May 1982 and that a plasma contributor to this batch was anti-HTLV 3 positive [NHBT0046145_017]. Please set out the steps that you took to identify and follow up haemophiliac patients treated with this product, as requested by Dr Ala. (You may wish to consider a letter sent on your behalf dated 18 November 1985 which identified 10 patients who had been treated with this particular batch [NHBT0046145_002]. The HTLV III status of five of the patients was recorded as positive; one as negative; and the remaining four as "N/A". Please state the significance of the patient's status being recorded as N/A).*

N/A I presume means the result is 'not available.' We did have paper records of what treatment batches had been received by which patients. It would have been a long task going through patient files and case notes to confirm what they had had. Given the NHS product was given to a minority of patients it would have been possible to identify potential recipients. Late 1985 was when routine HIV testing of blood donors was introduced. Perhaps this was how the HIV [HTLV-3] positive donation was identified. Testing of our patients may still have been a slow process, hence not all seem to have had a test by that time.

47. *Do you consider that heat-treated products should have been made available earlier? If not, why?*

At the time I assumed that manufacturers were working to make products as safe as possible. In late 1984 the SNBTS was able to heat existing Factor VIII in the vial [ready for use] and render it safe from HIV. I don't know if other manufacturers products could have been treated in this way and also made HIV safe. Since SNBTS had data showing that their product could survive this heating, they went ahead. If other manufacturers had no such data then they could not make this move.

48. *Did you or your colleagues at the Birmingham Centre revert to treatment with cryoprecipitate for some or all of the patients in response to the risk of infection? If so, how was it determined which patients would be offered a return to cryoprecipitate and which would not? If not, why not?*

I believe some patients, who had received very little prior treatment with concentrates, did receive cryo to cover surgical procedures, but I cannot give any instances with names or dates.

49. *Do you consider that your decisions and actions, and those of the Birmingham Centre in response to any known or suspected risks of infection were adequate and appropriate? If so, why? If not, please explain what you accept could or should have been done differently.*

I believe that Dr Hill and myself acted in good faith in the best interests of our patients at all times. With regard to non-A, non-B hepatitis, this was a known long standing risk. In the mid-1970s knowledge of liver disease was rudimentary, and the therapeutic effect of factor concentrates on men with haemophilia was so transformative it seemed impossible to stop using them.

With regard to HIV, which was an unknown risk until 1982 at the earliest, and although not blindly following orders, I did take my lead from people I considered to be experts in the field, which included Dr Hill, Dr Rizza from Oxford, Professor Bloom in Cardiff, and Dr Peter Jones in Newcastle.

50. *Looking back now, what decisions or actions by you and/or by the Birmingham Centre could and/or should have avoided, or brought to an end earlier, the use of infected blood products?*

There was no avoiding infected blood products, at least from non-A, non-B hepatitis, because what is now known as hepatitis C [HCV] was endemic in the UK population and in blood donors. Fresh blood components had a risk of HCV infection, as did cryoprecipitate, which we now know posed a risk of 1:500 to 1:1000 for HCV. A 70kg man would have acquired HCV from repeated exposure to cryo. Blood products now, meaning plasma concentrates, are now produced artificially. I don't think any decisions we could have made in Birmingham would have hastened their introduction.

51. *What actions or decisions or policies of other clinicians or other organisations, within your knowledge, played a part in, or contributed to, the scale of infection in patients with bleeding disorders? What, if anything, do you consider could or should have been done differently by these others?*

It is difficult to put oneself back into 1983, and I wasn't looking after patients with bleeding disorders before then. It would be difficult for me to realise the incredible positive effect that concentrates had on these men's lifestyles. I don't feel in the position to question decisions I was not involved in or had, at the relevant time, any experience in.

The failure to achieve anywhere near self-sufficiency in plasma products in England & Wales was to say the least, disappointing. I recall the clear statement of intent from the then Health Minister, Dr David Owen, that the UK was going to achieve self-sufficiency in plasma products. Had that been achieved, we might have seen much less HIV disease. Hepatitis C transmissions would not have been greatly altered. Achieving sufficient supplies was not easy as Factor VIII usage increased inexorably during this time as home treatment became more usual. But it might have been done.

52. *Do you consider that greater efforts could and/or should have been made to inactivate viruses in blood or blood products prior to 1980? If so, who should have made or coordinated those efforts and what steps should have been taken and when? If not, why?*

I am aware that there was a very considerable effort put in to develop hepatitis C (non-A, non-B) safe plasma concentrates. This included in the UK at BPL and PFC (Edinburgh) as well as other groups in Oxford and London. In the US the commercial companies also invested heavily. I believe that virus inactivation would have been introduced earlier if it had been effective against hepatitis.

53. *Please explain further your statement to the Archer Inquiry [ARCH0000443] that "the prevailing culture in medicine was that evidence was needed before action". To what extent, and how, has that culture changed?*

My statement to the Archer Inquiry was referring to 'the precautionary principle.' Traditionally, there was a requirement that evidence is needed before action is taken. In the minutes of the UKHCDO from October 1983 **[PRSE0004440]**, Professor Bloom is stated to have "replied that he felt there was no need for patients to stop using the commercial concentrates because at present there was *no proof* that commercial concentrates were the cause of AIDS." [my italics]. This is an example of the requirement for there to be evidence to lead action.

During the concerns with vCJD in meat and in blood, there was similarly for many years no proof that vCJD could be transmitted in blood. However, 'a lack of evidence is not the same as no evidence,' was a common statement. The precautionary principle was invoked at that time as I recall and led to the introduction, amongst other precautions, of universal leucocyte depletion of all blood components in the UK. No transmissions of vCJD by leucocyte depleted blood components are known to have occurred, although 4 transmissions occurred in transfusions received prior to leucocyte depletion.

With COVID-19 I am concerned that we have reverted to the requirement for evidence to precede action. Mask use in the prevention of coronavirus is a good example. Intuitively, it seems obvious that masks might reduce spread of a respiratory virus, but there is, or was, no evidence for the use of masks to prevent coronavirus spread outside clinical settings. This actually means that no evidence had been collected yet. Eventually, some evidence did accrue and masks were advised or required in certain settings. My concern is that there has been a movement away from the precautionary principle.

Section 4: Treatment of patients at the Birmingham Centre

Provision of information to patients

54. *What information did you provide or cause to be provided (or was, to your knowledge, provided by others) to patients at the Birmingham Centre:*

    a. *about the risks of infection in consequence of treatment with blood products (in particular, factor concentrates) prior to such treatment commencing?*

    With regard to information prior to such treatment commencing, I do not recall treating anyone who had never had treatment with plasma or cryo previously. Had we had such a patient this would have been considered an important event, and advice about hepatitis and AIDS risks discussed as appropriate to the time when training for self-medication would have been provided. I believe that the vials of Factor VIII were boxed and contained package inserts that mentioned the risks of hepatitis, but when these warnings began I don't know.

    b. *about alternatives to treatment with factor concentrates?*

    We did use alternatives as stated elsewhere. I cannot remember what discussions would have taken place if the alternatives to factor concentrates were not to be used when appropriate.

c. *before they began home treatment/home therapy?*

I do not recall commencing any patient on home therapy.

Please detail whether, and if so, how this changed over time.

Gradually as concerns over HIV/AIDS increased these discussions would have been more frequent, and during periods of factor withdrawal and severe shortages we would have discussed these issues in detail but I cannot recall specific instances.

HIV

55. *When did you first discuss AIDS or HIV (HTLV-III) with any of your patients?*

Concerns around this were discussed in clinic visits with patients and occasionally in the treatment room if a person was attending regularly for monitoring of a severe bleed for instance. These concerns and discussions started early on as soon as I began as co-director. I don't know what discussions took place before.

56. *Please describe how and when you learned that patients under your care/the care of the Birmingham Centre had been infected with HIV.*

We began testing patients in early 1985. Until that we were concerned but there was no proof. I do not recall patients developing signs or symptoms of AIDS prior to being tested.

The Regional Virus Laboratory, possibly at the Public Health Laboratory Service, at East Birmingham Hospital (now Heartlands) made it known they could do some tests for us. This was likely in conversation, rather than in writing. The tests were, I believe, from the USA and were not for routine use. I don't know what the regulatory status of the tests was. Perhaps they had no

CE mark. Penrose states on p.1328, para 30.32 that in March 1985 no Abbott kits were available for routine use, but a small quantity was imported to the UK for preliminary examination. Perhaps these were the kits? They were licensed in the USA on 2 March 1985 [Penrose: 30.24]. We had a special form to send with the blood sample. On the form, as I recall, we [the clinician] had to state by ticking a box, that the patient gave consent for the test. Consent was verbal, but specific for HIV (HTLV-III as it then was). The test took weeks to come back, and were stamped 'for research purposes only.' I wasn't, as far as I was concerned, doing research. I didn't, and still don't, know why the test results took so long to come back. But it wasn't only us. The UKHCDO minutes of 19 February 1985 record that "Concern was expressed regarding the delays at present experienced over results being reported to clinicians." I trusted the laboratory doing the tests and as I recall the results were reliable and when more routine testing was available the early results stood up. So I suppose during 1985 we gradually became aware that what we had feared was true, and that some men had been infected with HIV.

57. *What if any arrangements were made at the Birmingham Centre for pre-test counselling?*

Pre-test information was given personally by me. Counselling in the sense of non-directive discussions didn't happen – I was not trained as a counsellor and at that time I don't believe we had a counsellor. I did my best to explain the pros and cons of testing. I was offering tests to patients who agreed to have them. Most men agreed to a test, a few wanted to think about it. Ultimately though, over time, I think all agreed to be tested. We discussed the need for safe sex / barrier contraception from early on and I recall Dr Hill writing to all patients at one point on this issue. Frank Hill and I had repeated requests for funds to provide more nurses, a trained counsellor and other support workers refused by the Regional health authority – see my evidence to the Coroner referred to in this letter to Angus McGregor in early 1987 **[UBFT0000232]**. It is worth stating that the whole idea of pre-test or pre-

anything counselling emerged in the HIV/AIDS era. As far as I recall it didn't exist before hand.

58. *How and when and by whom were patients told that they had been, or might have been, infected with HIV? Were they told in person, by letter or by phone? Were they seen individually or in groups? What if any involvement did you have in this process?*

My written statement to the Archer Inquiry states my recollection of what was done at the time. '*My colleague and I took a decision that results would only be given in person, and in the clinic. Results were not mailed out, nor were they to be given out in the treatment area which would have meant inexperienced staff giving out the result. This was to ensure that we could explain and discuss the results with the patient, and provide support. I wouldn't say at that time it was counselling* [as I stated above I was not a trained counsellor]*, but we wished to support the person at the time of giving out the news – as I would do for any communication of complex information or bad news to any patient* [such as diagnosis of or recurrence of acute leukaemia, in which I was experienced]*. What we did not do was recall people as soon as the results were available. In retrospect, we should have done this. This decision did lead to some months passing before a person might come back to* [their routine appointment at] *clinic. This is something I regret, and I apologise to those who were not told as promptly as they should have expected.'*

The decision to see people individually to give the result was the right one. The minutes of the first Expert Advisory Group on AIDS (EAGA) meeting on 29 January 1985 **[WITN4032011]**: which I do not believe I would have seen until years later if ever until now] states at para. 15 '*counselling must be available at the point when an individual is first told that he* [sic] *has AIDS, and/or a positive test for HTVL III antibody, and should preferably be provided by the person who imparts this information. The person [or service] which instigates the screening test …. Must take responsibility for the*

consequences, including counselling. The provision of effective counselling could, however have significant resource implications.'

We were, I must say and certainly I was, overwhelmed by the scale of the problem in the Haemophilia Unit and did not have clinic time to do all that we should have wished, which would have been to see the men soon after a result was received and probably have seen them for longer and more frequently thereafter. As the EAGA minutes state, the resource implications were indeed very significant.

I never saw patients in groups to impart information. I would have considered it then and still now to have a major risk of breaking confidentiality.

59. *What information was given to them about the significance of a positive diagnosis? Were patients told to keep their infection a secret?*

I think at this time in early 1985 it was still uncertain as to what an HIV [HTLV-III] positive antibody test meant. Exposure certainly, but there was a belief that it might have meant immunity for some. It wasn't clear until a bit later that all had active infection. I think our advice would have been to be very careful with the information about an HIV test. There was a lot of hysteria out there, probably more in the USA. But not to keep it a secret in the sense of lying about having had a test. I don't think so.

60. *What was the policy at the Birmingham Centre in relation to testing partners/family members of people known or suspected to be infected with HIV? Under what circumstances were the tests carried out?*

We offered testing to partners and tragically a few were positive. A discussion would have been held in the out-patient clinic and a test done if wished for by the couple.

61. *What, if any, information or advice was provided by you or colleagues at the Birmingham Centre to partners or family members of people who were at risk of infection with HIV or were infected with HIV?*[1]

I remember Dr Hill writing to all patients at the QEH Centre about the importance of safe sex and using condoms. Our nurse at one time took an interest in providing advice and support to men about safer sex. She obtained lots of information about safer sex but most was from the large London units who mainly had gay men as patients. Condoms were available in the treatment room free of charge. This was all heterosexual sex. Although with 400+ patients and 100 with severe haemophilia we must have had some gay men none was 'out.' I think this reflected the general picture in Birmingham at the time.

My letter to a Dr Jones (clearly not the haemophilia expert) **[WITN1388002]** describes our advice to those wishing to have children. My choice of words suggests to me that we may have been limited in the number of HIV [HTLV-III] tests we could do: "Unfortunately we have been so far unable to test [GRO-B] to see whether he has been exposed to the HTLV III virus in the past.". My choice of the word 'exposed', rather than using 'infected,' reflects the uncertainty around the significance of the test result.

I also refer to 'nationally agreed advice,' which presumably is to maintain safe sex practices and defer, at least, aiming for a pregnancy.

62. *What if any arrangements were made at the Birmingham Centre for post-test counselling?*

Initially post-test advice and support was done in clinic by Dr Hill and myself, starting at the time of informing the person of the positive result. We would have made a further appointment to see them and provide more advice and

[1] ***You may wish to consider your enclosed letter of 1 August 1985 [WITN1388002] about your "present advice" to haemophiliac patients wishing to have children. You are not being asked to comment on the particular circumstances of this or any other individual patient.***

support. To my mind this was not counselling - I was not a trained counsellor and the time to provide counselling was not available. We were aware of this need and applied for funding for counselling support. There would have been some additional support available from the nurse in the treatment room but this wasn't always suitable if patients were attending needing treatment for a bleed - we didn't have the necessary confidential space. Eventually we got a counsellor who combined social work support in her role, sometime in 1987. This made a huge difference but was still insufficient. At some point we got another room next to the treatment room which provided a safe space for counselling. But this was well after the HTLV III/HIV testing period.

63. *How many patients at the Birmingham Centre were infected with HIV? Of those infected,*

a. *How many had severe haemophilia A?*

My recollection is that around 65 men at the adult centre and about 30 boys at the Children's Hospital were HIV positive and nearly all were severe.

b. *How many had moderate haemophilia A?*

I don't recall but some almost certainly.

c. *How many had mild haemophilia A?*

Perhaps one or two. To be honest I do not remember.

d. *How many had haemophilia B?*

I think we did have maybe two cases. Again, not sure from memory.

e. *How many had von Willebrand's disease?*

I do not recall any.

f. *How many were children?*

About 30 perhaps but I didn't look after them until some of them transferred across as adults.

64. *Was work undertaken at the Birmingham Centre to establish the time period during which patients seroconverted? If so, please describe what work was done and what if any conclusions were reached.*

No systematic work was done by me to determine the time period of infection. Although I reviewed case notes to see if I could identify dates of infection with HIV this was uninformative other than for a very few patients. I don't recall when those sero-conversions would have occurred. I did not keep archive blood samples from the past. The virology laboratory at East Birmingham Hospital did keep samples from the past that could perhaps have been used to determine the timing of seroconversion to HIV [HTLV-III]. This was not done at my instigation. I do recall Dr Hill mentioning that many patients were infected circa 1981 but I don't ever remember seeing the data. Perhaps he was referring to data from other centres where I believe such testing took place. Certainly Penrose [10.11, p.452] states that the late Dr Peter Kernoff 'submitted stored samples … from his haemophilia patients to Prof Tedder in October 1984.' He continues that 'Almost all of the patients were infected between 1980 and 1982.'

65. *Were patients treated at the Birmingham Centre, or at the Birmingham Children's Hospital, infected by heat treated products? Please provide full details. (You may wish to consider the enclosed newspaper reports in December 1986 [HSOC0015832, HSOC0022124] of your evidence at the inquest into the death of a patient in June 1986; see also your letter dated 12 February 1987 to Mr O'Connell which referred to five patients who had been identified as likely to have been infected with HIV from heat treated products.)*

From memory, a number of children were infected with HIV from heat treated concentrate, which I think was the Armour product from the USA. I am afraid I have no more details than are in the documents.

HBV

66. *Were patients infected with HBV informed of their infection and if so, how? What information was provided to patients infected with HBV about the infection, its significance, prognosis, treatment options and management? What if any involvement did you have in this process?*

I believe those exposed to hepatitis B would have been informed, and also their status discussed depending on whether they might continue to be infectious to others. This would have been discussed in clinic or in the treatment room if a person was attending on an ad hoc basis. The restriction on giving results about HTLV-III in clinic only I do not think applied to hepatitis B or non-A, non-B hepatitis results. Management I recall would have been limited to monitoring the status of hepatitis B antibodies and liver function tests, and advice about protecting others.

67. *How many patients at the Birmingham Centre were infected with HBV? NANB*

I am afraid I cannot provide any information as to how many patients acquired hepatitis B in the Birmingham centre.

Hepatitis/HCV

68. *Were patients infected with NANB hepatitis informed of their infection and if so, how and by whom? What information was provided to patients infected with NANB hepatitis about the infection, its significance, prognosis, treatment options and management? What if any involvement did you have in this process?*

Patients infected with NANB hepatitis were informed of their infection by the Centre doctors in clinic or perhaps in the treatment room. I do not think this would have been by writing out to them. There was no specific test, so it required a discussion about liver function test results.

The prognosis at the time was thought to be generally benign, and this would have been explained. The importance of avoiding excess alcohol use would have been discussed. Even after the risk of progression to liver disease was known there were not any management options I can recall. I would have been involved in seeing patients, advising them of their liver results and also teaching medical trainees, who in those days provided a lot of the manpower, about NANB hepatitis.

In Birmingham these patients would have been managed via reassurance and regular supervision at approximately three to six month intervals. There was no treatment until HCV was identified when interferon therapy was introduced. I think this was after I had moved to Glasgow.

69. *When did the Birmingham Centre begin testing patients for HCV? If the testing of patients began before you left in 1992, please answer the following questions:*

    a. *How, when and by whom were patients informed of their diagnosis of HCV? Were they told in person, by letter or by phone? What if any involvement did you have in this process?*

    b. *What information was provided to patients infected with HCV about their infection, its significance, prognosis, treatment options and management?*

    c. *When a test for HCV became available, what if any steps were taken by the Birmingham Centre and/or by you to ensure that all patients who had received blood products were traced and invited to be tested?*

Although testing of blood donors for HCV began in 1991, I do not remember offering HCV tests to the haemophilia patients. I left Birmingham in August 1992.

70. *How many patients at the Birmingham Centre were infected with HCV?*

I do not have a figure for this but it is likely to be most of the survivors of HIV/AIDS, plus HIV negative patients who received Factor concentrates prior to effective viral inactivation. Also those who had large numbers of cryoprecipitate units, which would have included some patients with Von Willebrand's Disease. Although in 1986 we had 423 registered patients, many of these would never have had treatment and so would not have been at risk from HCV.

Delay/public health/other information

71. *Were the results of testing for HIV and hepatitis (of all kinds) notified to patients promptly, or were there delays in informing patients of their diagnosis? If there were delays in informing patients, explain why. (You may wish to consider your evidence to the Archer Inquiry [ARCH0000443] to the effect that patients were not recalled as soon as the results were available and that this led to some months passing before a person might come back to the clinic).*

The delays in getting the results back was due to laboratory issues of which I am unaware. The delay in advising patients of the result once we had it I greatly regret but the cause was a lack of resources in terms of clinic time and personnel [see answer to 58 above].

72. *Your statement to the Archer Inquiry [ARCH0000443] refers to results (for HIV, or HTLV III, testing) taking "weeks to come back, and were stamped with 'for research purposes only'". Why, and by whom, were results so stamped? What were the research purposes referred to? Your statement also refers to uncertainty over the meaning of test results and "a note of a meeting in which an eminent virologist stated the possible meanings of such a result at that*

time". Please identify the meeting and the virologist to whom you were referring and provide a copy of the note. Please also explain the uncertainty over test results that you refer to.

I did not consider I was doing research. I was trying to help patients and to understand what was happening with AIDS in haemophilia patients. The research, from checking Penrose [30.32], seemed likely to be an evaluation of an unlicensed or unapproved test by the virus laboratory. It was the laboratory that stamped the result as 'for research purposes only.'

I will need to seek papers from SNBTS regarding the identity of the virologist. I have asked for these but nothing has been forthcoming to date.

The uncertainty over the meaning of the results of the tests for HIV in the early days related to whether a positive test meant AIDS would follow. The natural history of infection with HIV was not known at that time. **[WITN4032012]** is a draft paper reporting the UK AIDS position at that time, which was late 1984, although it is undated. It mentions the significance of the test for antibody to HTLV III. *"The test identifies antibody in an individual who has been exposed to the virus… There will therefore be a latent period before an antibody develops in which an individual infected with the virus can pass it on.* [now known as the window period] *A test for antigen is clearly the ultimate satisfactory test. In the meantime it can be assumed that the presence of antibody indicates infectivity. The significance in antibody with regard to development symptoms* [sic] *or alternatively protection against AIDS is unknown."* I would no doubt have seen the final position paper and would hold myself to that description of what a positive test meant, whenever that was published.

73. *To what extent, if at all, did you/your colleagues take into account the public health implications of HIV, AIDS, hepatitis B, NANB hepatitis and hepatitis C, when taking decisions as to what information or advice to provide to patients or what treatment to offer patients?*

All men with haemophilia were given information about how to keep safe from AIDS regarding safer sex and minimising the risk of transmission through other forms of close contact like sharing toothbrushes, razors. Despite this some of our young men, who were reluctant to attend clinic for routine appointments, did behave in ways that placed others at risk. Some of these are well described and in the public domain.

We were also concerned to protect laboratory staff and other hospital workers. There was a well-established system for identifying hepatitis risk samples. When HTLV III / HIV became a concern and we had positive patients we had a problem with confidentiality. We did not believe we could write "HTLV III positive" on a form with a person's identifying details. The solution was to label every sample from the haemophilia unit as 'high risk,' and to train the laboratory staff about that. We had some measures to transfer samples to the laboratories in bags before that became routine, which helped improve confidentiality. Also, the hospital had a pneumatic tube delivery system for urgent blood samples but we did not use that because of a small risk of samples breaking or ending up in the wrong place.

74. *What information was provided to patients about the risks of other infections?*

In addition to hepatitis and HIV I recall some concerns about parvovirus. I don't remember whether that was something that was discussed with patients.

75. *What information was provided to patients about the risks of infecting others?*

See 73 above.

Consent

76. *How often were blood samples taken from patients attending the Birmingham Centre and for what purposes? What information was given to patients about the purposes for which blood samples were taken? Were patients asked to*

consent to the storage and use of the samples? Was their consent recorded and if so how and where?

Blood samples would be taken from patients at most, if not all, their visits to the out-patient clinic. Probably not always if they attended the treatment room for emergency Factor therapy. Some men only ever attended the treatment room so would have samples taken there. Tests would have been for:

- HIV antibody [not every time if a person was positive].
- Tests for monitoring HIV status such as HIV antigen.
- Lymphocyte subset analysis for monitoring the degree of immune deficiency in men who were HIV positive. This test had to be pre-ordered and patients had to attend specifically for this test, so were fully informed about it.
- Full blood count looking for anaemia [especially later in the '80s if a person was on AZT therapy]. Lymphocyte count.
- Test for inhibitors to Factor VIII.
- Liver function tests to monitor non-A, non-B hepatitis.
- Probably kidney function tests [Urea & electrolytes], as they were done on the same analyser as the liver tests.
- Tests for hepatitis B if the person had not had this before.

The information given about the purpose of the tests would have been verbal and related to all the above and possibly others that I do not recall. No written consent was obtained, consent was 'implied' as was usual at that time, other than for HTLV III / HIV antibody tests. No consent was taken for storage of samples. I don't remember any samples being stored by myself. As I mentioned earlier I believe it was the practice of the Regional Virology Laboratory to retain samples for some time. The only form of consent in writing was that the haemophilia centre doctors had to tick a box [as I recall] to confirm that [verbal] consent to HIV antibody testing had been obtained. I do not recall if we made a note in the case record that they had agreed to the test.

77. *Were patients under your care treated with factor concentrates or other blood products without their express and informed consent? If so, how and why did this occur? What was your approach to obtaining consent to treatment? Was their consent recorded and if so how and where?*

I do not believe any patient was treated with factor concentrates or other blood products without their agreement. I believe that consent was obtained verbally and was informed within the limits of knowledge at the time. Written consent was not obtained. With regard to Factor treatment at the centre the patient would have attended the centre because of a problem with bleeding. If Factor concentrate was prescribed and recommended consent would have been implied by the act of the patient holding their arm so as to permit the infusion - this takes several minutes so cannot be done without co-operation. Treatment could not be given in secret. Men on home therapy were treating themselves, or their partner was administering it. They would have agreed to be trained to self-administer, for which consent would have been implied by the act of their accepting training. Those were the bases for obtaining consent to treatment 35+ years ago.

78. *Were patients under your care tested for HIV or hepatitis or for any other purpose without their express and informed consent? If so, how and why did this occur? What was your approach to obtaining consent for testing? Was their consent recorded and if so how and where?*

I would have to say that testing with 'express and informed consent' was not the standard of care in the 1980s, when implied consent would have been the accepted norm. Patients were all told that they were being offered an HIV [HTLV-III] test that they could refuse. My recollection is that some chose not to have a test for a while but I do not remember anyone refusing permanently. Tests for non-A, non-B hepatitis was by liver function tests. This would have been done via a conversation such as 'we should check your liver,' or something similar. I don't believe that consent as recorded anywhere other

than on the form sent to the Regional Virus Laboratory for HIV [HTLV III] antibodies which required the requesting doctor to tick a box.

I recall one instance when a patient of mine was tested without any prior discussion or even implied consent. This was not a person with haemophilia. We were concerned about lymph gland cancer. Without referring back to me, or to the patient, a HIV antibody test was authorised by the registrar which proved positive. This had a disastrous outcome when reported to the patient who became extremely distressed and eventually transferred to another hospital.

Although obviously upset by the result if positive, I do not recall any similar instance in the haemophilia patients, because they had been advised beforehand about the test.

PUPS

79. *Please detail all decisions and actions taken at the Birmingham Centre by you or with your involvement with regard to a category of people referred to as 'previously untreated patients' (PUPS).*

I don't recall any involvement with studies on previously untreated patients, who in the main would have been children. The communication I had with Dr Snape at BPL about heat-treated NHS Factor VIII [possibly 8Y] I believe related to men who had not received much treatment and only NHS material.

Treatment of patients who had been infected with HIV and/or Hepatitis

80. *How was the care and treatment of patients with HIV/AIDS managed at the Birmingham Centre? In particular:*

Early on I recall Dr Hill and I discussed whether to refer any patients with HIV [HTLV-3] to the infectious disease unit at East Birmingham Hospital [EBH: now Heartlands]. I recall we, or perhaps Dr Hill did, speak with them and

discovered they had no patients with HIV at that time. I think there was a Dr E**** who we did liaise with from time to time. However, EBH had no haemophilia service, so this would have meant the men having to attend two hospitals on a regular basis. We considered that the lack of HIV expertise at EBH at that time, the complications that could arise with trying to manage haemophilia at a distance, and the additional hospital visits made the decision to look after the men at QEH and the Children's Hospital the right course of action. It was complicated managing orthopaedic surgery for the haemophilia patients at the Birmingham General Hospital, which was much nearer than EBH. Furthermore, we already had experience in dealing with immune deficient patients from our leukaemia and bone marrow transplantation practices.

We did discover that a number of wives of HIV positive men also were HIV positive. These women were referred to the HIV unit at East Birmingham Hospital because they did not also have haemophilia.

a. *What steps were taken to arrange for, or refer patients for, specialist care?*

   We were fortunate in having an outstanding liver unit at QEH which was a regular source of advice. I'm not sure we actually referred many patients to them, but they might visit in-patients when requested.

   Respiratory care was a problem as there was no respiratory medicine service from early on when the Professor retired and was not replaced and his colleague left for a position in Oxford. The service at the General Hospital was willing to help but small. Eventually I went to EBH to learn bronchoscopy so that we could diagnose PCP in our patients. I would seek advice from Dr S there but I don't remember referring patients.

Towards the end of the 80s I remember we would ask Dr E**** to see occasional patients who were proving complex to diagnose or manage. Again, I do not recall transferring patients out of the QEH.

b. *What treatment options were offered over the years to those infected with HIV?*

Contrary to what one sometimes reads today there was always something one could do for the HIV positive men. Monitoring their immune status could help predict when they may be more at risk of infections – particularly PCP. We could then start treatment to prevent PCP.

We would look for evidence of oral thrush [fungal infection with candida] and treat if seen or found on a throat swab.

Specific infections that the men might have would be treated with appropriate antibiotics, and antiviral drugs.

Azidothymidine [AZT] obtained a product licence sometime in early 1987. We were aware of promising reports from the USA and there was a big study which provided the first optimism for some time. We actually began using AZT from perhaps early 1988 onwards. AZT seemed to be good to start with but didn't prevent progression to AIDS. Although it later had a bad press – due to suppressing effects on the bone marrow of which Dr Hill and myself as haematologists were fully aware and experienced in managing – it remains on the WHO list of essential medicines. I have some recollection that the AZT was expensive and funded directly by the West Midlands Regional Health Authority. We had, I believe, to let the medical head of the RHA know when a new patient was to commence treatment.

Towards the end of my time in Birmingham some of the other agents that would later be included in the HAART regime began to be used in

the clinic. I don't have a strong memory for what these were and how many patients received them.

c. *What information was provided to patients about the risks and benefits of specific treatments and about side effects?*

There was a lot of information provided about AZT and I think the later agents too. To begin with, patients were expected to take the AZT every 4 hours including through the night, which was a very intrusive and ultimately unnecessary requirement. It was a big deal starting on it because although it brought hope, it also meant you had severe HIV disease, even if not yet 'full-blown' AIDS. Side effects were also well described and the bone marrow suppression required an increased frequency of blood tests to monitor anaemia, low white cells and platelets.

d. *What follow-up and/or ongoing monitoring was arranged in respect of patients who were infected with HIV?*

There was frequent follow up of patients with HIV. We were looking for signs of 'pre-AIDS' such as enlarged lymph glands. Although at times it did seem that there wasn't a lot we could do in fact, if one of our patients who was not good at attending clinic did come along after a prolonged absence they were often in a less good state with oral thrush, or weight loss that could take some time to correct. General clinical vigilance did seem to help. Clinic was also an opportunity to discuss how things were going generally and to impart emerging information about HIV. Eventually, perhaps as late as 1987, we did get a counsellor who provided counselling advice as well as practical help with benefits and, later, Macfarlane Trust applications. Our colleague was excellent, but one person could only do so much.

81. *How was the care and treatment of patients with HBV managed at the Birmingham Centre? In particular:*

Hepatitis B was not, I think, treatable in the 1980s. By the time I started on the Haemophilia Unit in late 1983 we did have a vaccine and did use it. But it was at that time a blood product made from patients who had HBV. Later in the 1980s I think there was a recombinant vaccine that could not transmit HBV or any other virus.

a. *What steps were taken to arrange for, or refer patients for, specialist care?*

   Almost all of the men with severe haemophilia had abnormal liver function tests at some time and most had had previous episodes of jaundice. We would have referred patients to the liver unit at the QEH hospital for expert advice. I do not have any recollection of any severely ill patients until much later when their liver disease was worsened by AIDS. The liver unit did, towards the end of my time there, carry out liver transplants on two men with haemophilia from other haemophilia units – perhaps Sheffield? I was involved in the haemophilia supportive care in the pre-operative phase of their treatment. While I was in Birmingham no patients of ours required a liver transplant.

b. *What treatment options were offered over the years?*

   I don't recall treatment being available. Certainly none of the current antivirals used was prescribed by me at that time.

c. *What information was provided to patients about the risks and benefits of specific treatments and about side effects?*

   Not applicable.

d. *What follow-up and/or ongoing monitoring was arranged in respect of patients who were infected with HBV?*

Ongoing monitoring was linked to the haemophilia follow-up.

82. *How was the care and treatment of patients with NANB hepatitis managed at the Birmingham Centre? In particular:*

    a. *What steps were taken to arrange for, or refer patients for, specialist care?*

       See 81 A above.

    b. *What treatment options were offered over the years?*

       I don't recall treatment being available while I was in Birmingham. I referred bone marrow transplant survivors who were HCV positive for interferon treatment when I was in Glasgow probably from 1993 onwards.

    c. *What information was provided to patients about the risks and benefits of specific treatments and about side effects?*

       Not applicable.

    d. *What follow-up and/or ongoing monitoring was arranged in respect of patients who were infected with NANB hepatitis?*

       Ongoing monitoring was linked to the haemophilia follow-up.

83. *If and to the extent that you were involved with the care and treatment of patients with HCV at the Birmingham Centre prior to your departure in 1992, please provide details of that care and treatment.*

As stated earlier, I do not recall using the specific HCV test while in Birmingham. So we were still dealing with non-A, non-B hepatitis which had no specific treatment then.

84. *What arrangements were made for the care and treatment of children infected with HIV or hepatitis? How did those arrangements differ (if at all) from the arrangements made for adults?*

I don't know about the children as I didn't work at the Children's Hospital. When the boys transferred over to the Queen Elizabeth Hospital - between ages of 16 and 19 - I recall, depending on their wishes - I did not detect any obvious differences in their care from what I would be offering. One change of course was that at a children's hospital parents are very much involved in the decisions about care. At an adult centre the patient is managed as an individual with their own personal agency and control. Most of the transferring men saw me without their parents after their transfer.

85. *What, if any, arrangements were made to provide patients infected through blood products with counselling, psychological support, social work support and/or other support?*

It was obvious early on that the resources available to the Haemophilia Units at the QEH and Children's Hospital were inadequate for dealing with the emerging issue of HIV. The resources were barely sufficient for the pre-AIDS care involving monitoring of Factor requirements, managing bleeds, training for home therapy, non-A, non-B hepatitis, etc. More support was urgently needed. I recall that there was money for AIDS from the government to Regional Health Authorities, and since haemophilia was a regionally funded service, certainly in terms of Factor VIII etc., we felt we would get some funding. However we were unsuccessful on a number of occasions. We also tried to get support from the Queen Elizabeth Hospital. At that time there was a general manager but the main resource allocation came from the Medical Staff Committee, of which I – and all consultants – was a member. Sadly, we

didn't get much support here either. When we did eventually get some funding it was reduced.

What records I have from those provided include Dr Hill writing on 24 January 1986 about increases in the cost of concentrates. A revenue request was made in April 1986, and further correspondence followed in June to local managers and colleagues. 15 January 1987 was the first meeting of the [Birmingham?] Joint Care Planning for AIDS group **[UBFT0000284]** where Dr Hill outlines the needs of the men with haemophilia. As the AIDS problem escalated we sought more beds in February 1987, and a further bid for resources was made in March that year.

So I have evidence that we were asking for support from early 1986 **[UBFT0000252]** but I don't think we had a professional trained counsellor until late 1987, and then only one person to cover social work issues as well as counselling. I suspect we were seeking funding earlier than 1986 but I don't have any documentary evidence for that. We knew quite early on what services were necessary but getting them funded was a challenge.

I remember watching a late evening television programme from about 1991 or 1992. This showed a House of Commons committee meeting relating to a recently published National Audit Office report **[WITN4032013]**. The committee was asking what had the West Midlands Regional Health Authority [WMRHA] done with the money allocated to them from the DHSS for HIV/AIDS? This covered the time when Dr Hill and I had been trying to obtain support for the haemophilia unit, and it transpired that at this time the RHA had been returning money to central government unspent. The committee was very critical of the RHA representative appearing before them. I have been unable to find a transcript of this meeting. Perhaps the Infected Blood Inquiry would have more luck? This occurred at a time when a modest sum would have transformed services to patients with haemophilia.

86. *Did the Birmingham Centre receive funding from the Department of Health and Social Security or from any other source to help with the counselling of patients infected with HIV?*

Not from the DHSS, not from the allocation to Haemophilia Reference Centres because we were not reference centres. This latter was quite a modest amount of money but anything would have helped at that time. Eventually we obtained support from the WMRHA and possibly from the district health authority.

87. *What (if any) difficulties did you/the Birmingham Centre encounter in obtaining sufficient funding for the treatment of people who had been infected with HIV? Please explain the attempts that you made to obtain further resources (as referred to in your written and oral evidence to the Archer Inquiry [ARCH0000443, ARCH0000008]), the responses that you received and the extent to which your attempts were successful. (You may wish to consider the report which you and Dr Hill co-authored in April 1986 concerning 'Consequences of AIDS to Haemophilia Services' [UBFT0000252], the letter dated 24 November 1986 from you and Dr Hill to Edwina Currie MP [UBFT0000159] and the letter from Dr Whittington, the Birmingham Coroner, dated 23 December 1986 [UBFT0000161]).*

I think I have provided some of the details above at Q.85. The letter replying to Mrs Edwina Currie MP from myself and Dr Hill **[UBFT0000159]** confirms my view that we had been trying for some time to improve the service provided to the patients. It makes depressing reading. HM Coroner in December 1986 felt moved to write to the WMRHA CMO about the lack of support we were receiving **[UBFT0000161]** following the inquest of the first person with haemophilia to die of AIDS from our clinics. Mrs Currie was an MP for a Leicestershire constituency which shows that our patients were not only locally resident.

88. *What if any involvement did you, the Centre or your patients have with clinical trials in relation to treatments for HIV? Please provide full details.*

We followed the progress of the medical literature on HIV/AIDS very carefully, including the progress of clinical trials of AZT in particular. I do not recall UK trials recruiting people with haemophilia and as far as I recall no such trials took place at the QE Birmingham centre.

Records

89. *What was the Birmingham Centre's policy with regard to recording information on death certificates when a patient had been infected with HIV or hepatitis?*

I do not recall a policy as such for completing death certificates of persons with HIV or AIDS.

a. *You gave evidence in December 1986 at the inquest into the death of one of your patients who had been infected with HIV after receiving commercial Factor VIII products (see the enclosed newspaper reports). Please provide details of your involvement in any other inquests involving patients who died after being infected with HIV or HCV from blood or blood products.*

I remember the first patient of ours who died of PCP very quickly after being admitted. He had been seen in clinic only a few weeks previously and had some signs of immune deficiency. I do not remember what was written on the death certificate or who completed it. I recall that the Coroner held perhaps one or two more inquests on people with haemophilia and HIV/AIDS but not their names or the times. Neither do I remember whether we continued to refer such events to the Coroner's Officer. I do remember that after these first few cases the Coroner no longer required inquests for haemophilia associated HIV/AIDS deaths. With regard to the Coroner's statement about the patient's GP not being informed of his HIV status I recall our practice was not so to inform the GP unless the patient agreed – which would have been verbal agreement. My letter to the Regional Medical

Officer in January 1987 **[UBFT0000232]** states that the GP, and the patient, had been informed of the HIV status.

90. *What were the retention policies of the Birmingham Centre with regard to medical records during the time you were practising there?*

These would have been the same as the retention policies for the hospital generally. I don't remember what that was – probably 9 years. It was possible to affix stickers to medical case notes asking that they be kept longer, perhaps even indefinitely.

91. *Did you maintain separate files for some or all patients? If so, why; where were those files located; and where are those files now?*

There were separate folders in the Haemophilia Treatment Room that included the records of treatment, home treatment records. Possibly other information. This was because medical records may not be accessible at night or weekends when urgent treatment may be required. I would have thought these notes would become part of the main patient medical notes and be filed with them as time went by, leaving just the most recent pages in the Treatment Room. I don't have any information as to where these or any other notes might be now.

92. *Did you keep records or information (e.g. information being used for the purpose of research) about any of your patients at your home or anywhere other than the Centre? If so, why, what information and where is that information held now?*

No.

93. *Do you still hold records or information about any of your patients at the Birmingham Centre? If so, explain why and identify the records or information that you still hold.*

As above, I did not keep patient records or information such as information to be used for the purpose of research about any of my patients at the Birmingham Centre. I have some very limited documentation in relation to the matters that I have set out at paragraph 4.

Research

94. Please list all research studies that you have been involved with insofar as relevant to the Inquiry's Terms of Reference[2] and:

1. 8Y Study.

I am afraid I have no recollection of my involvement in this study at all. Clearly I am included in the list of trial participants and I remember the interest in the introduction of 8Y. Perhaps Dr Hill dealt with the trial aspects but if any patient was adult it would be down as my patient. I am sorry I cannot be more help.

a. *Describe the purpose of the research;*

The purpose of the study was to confirm the safety of 8Y with regard to hepatitis risk, development of inhibitors and efficacy in securing haemostasis.

b. *Explain the steps that were taken to obtain approval for the research;*

I do not recall. The paper states that Local Research Ethical Committee approval was obtained for all sites. p.269. *Protocol for study: entry criteria.*

c. *Explain what your involvement was;*

[2] ***Please include in your response reference to the study in which you participated on the viral safety of BPL's 8Y product (a later report of the study is enclosed) [PRSE0000192].***

I do not recall.

d. *Identify what other organisations or bodies were involved in the research;*

BPL provided the Factor 8Y. From memory, the list of participants includes doctors from The Royal London Hospital [Dr Colvin], Hammersmith Hospital [Dr Daly], Manchester Children's [Dr Evans], myself, Yorkhill Hospital Glasgow [Dr Hann], Dr Hill, Derby [Dr D Mitchell], Sheffield [Prof Preston], Bradford [Dr Parapia], St Thomas's London [Dr Savidge], Coventry [Dr Strevens], Oxford [Dr Rizza], Royal Free Hospital, London [Dr Kernoff]. The other names I don't recognise.

e. *State how the research was funded and from whom the funds came;*

I doubt there was any funding other than the provision of 8Y that was probably free of charge, being an NHS product.

f. *State the number of patients involved;*

It states in the paper that 49 potentially eligible patients were identified, of which 38 entered the study. Twenty-seven patients seem to have completed the study. The QEH Birmingham numbers would have been only a few of these.

g. *Provide details of steps taken to inform patients of their involvement and to seek their informed consent;*

The paper states that Local Research Ethical Approval was obtained and all patient participants gave informed consent.

h. *Provide details of any publications relating to the research. Please provide the same details in relation to any epidemiological or similar*

studies in which you were involved, insofar as relevant to the Inquiry's Terms of Reference.

Publication as provided at **[PRSE0000192]**: Rizza CR et al, '*Confirmation of viral safety of dry heated factor VIII concentrate (8y) prepared by Bio Products Laboratory (BPL): a report on behalf of U.K. Haemophilia Centre Directors*' (*British Journal of Haematology*, 1993, 84, 269-272).

2. Trial of prevention of cytomegalovirus [CMV] in allogeneic bone marrow transplantation.

a. *Describe the purpose of the research;*

Bone marrow transplantation [BMT] renders patients extremely immune suppressed for a prolonged period. Reactivation of endogenous CMV – many people are infected with CMV early in life and the virus can lay dormant – or CMV in blood transfusions – which can occur even if CMV negative components are used – is a major cause of morbidity and mortality in BMT. This trial aimed to prevent CMV disease in BMT recipients using a combination of an anti-viral drug ganciclovir and intravenous immunoglobulin selected for a high level of anti-CMV antibody.

b. *Explain the steps that were taken to obtain approval for the research;*

Local [hospital] ethical committee approval would have been required. I have no records relating to this study to confirm this.

c. *Explain what your involvement was;*

I conceived, planned and carried out the study with co-authors. I negotiated a supply of Venoglobulin from a pharmaceutical company

called Alpha Therapeutics from which we were already buying the product. At no additional cost, as I recall, the company provided high-titre CMV batches. So we paid for standard Venoglobulin but got high titre anti-CMV product, which might normally be unavailable or would cost [much] more.

d. *Identify what other organisations or bodies were involved in the research;*

The Queen Elizabeth Hospital BMT Unit and the pharmaceutical company.

e. *State how the research was funded and from whom the funds came;*

As above. Hospital pharmacy paid for the two drugs. Alpha Therapeutic financed the high titre assays for the Venoglobulin.

f. *State the number of patients involved*

25.

g. *Provide details of steps taken to inform patients of their involvement and to seek their informed consent;*

I don't completely recall but it is likely they signed their agreement to participate. It is however possible that verbal agreement only was obtained. They would definitely have agreed to the study and knew they were participating.

h. *Provide details of any publications relating to the research. Please provide the same details in relation to any epidemiological or similar studies in which you were involved, insofar as relevant to the Inquiry's Terms of Reference.*

Patton WN et al, '*CMV prophylaxis in allogeneic BMT with ganciclovir and CMV immune globulin*' (*Bone Marrow Transplant*, 1991, 7 Suppl 2:44). Only an abstracted was drafted but I have been unable to access this. We never wrote a full paper.

Having reviewed the Terms of Reference of the IBI I do not believe I have been involved in epidemiological studies.

95. *Were patients involved in research studies without their express consent? If so, how and why did this occur?*

Not as far as I am aware.

96. *Was patient data (anonymised, de-identified or otherwise) used for the purpose of research or for any other purpose without their express consent? If so, what data was used and how and why did this occur?*

See next answer.

97. *Was patient data (anonymised, de-identified or otherwise) shared with third parties (such as Oxford Haemophilia Centre/Dr Rizza/Dr Craske/UKHCDO) without their express consent? If so how, and why did this occur, and what information was provided to whom?*

The UKHCDO collected data on numbers of haemophilia patients registered and the amounts of factor concentrates used, as I recall. I am fairly sure this data was transferred to Oxford without the knowledge of the patients. I am also fairly sure it was anonymized. In the 1980s I would think this was transmitted on paper, by post. I think it was done to enable the UKHCDO to know how much clotting factor concentrates were being used and to predict future use. This in turn would be used to negotiate supplies.

98. *Please describe the kind of information about patients that was provided by the Centre/you to Dr Rizza/Oxford Haemophilia Centre, Dr Craske/the Public Health Laboratory Service and UKHCDO over the years that you were a consultant haematologist at the Birmingham Centre.*

As far as I recall, it was numbers of registered patients and total amounts of product used. I don't think it was identifiable. However, there was a period when Dr Hill and I were concerned about confidentiality and withheld data. This may have been in relation to numbers of, or even details of, HIV positive patients. I do not recall how this issue was resolved, if at all.

99. *Please provide details of any articles or studies that you have published insofar as relevant to the Inquiry's Terms of Reference.*

Possibly relevant studies are listed below from after my time in Birmingham.

- Dow BC et al, '*HTLV antibody screening using mini-pools*' (*Transfus Med*, 2001 Dec, 11(6), 419-422) **[WITN4032014]**;
- Franklin IM et al, '*Benefits of a blood donation archive repository: international survey of donor repository procedures and Scottish experiences*' (*Transfusion*, July 2007, 47, 1172-9 **[WITN4032015]**;
- Franklin IM, '*Prevention of Hepatitis C in Japan: a lesson for us all*' (*Lancet*, 15 December 2007, 370, 371-471) **[WITN4032016]**;
- Franklin IM, '*Prevention of rhesus haemolytic disease of the fetus and newborn*' (*Lancet*, 373, 1082 [correspondence]) **[WITN4032017]**;
- Webster G et al, '*Protecting travellers from hepatitis A*' (Editorial: *BMJ*, 2001, 322, 1194-5) **[WITN4032018]**.

Section 5: UKHCDO

100. *Please describe your involvement with UKHCDO (including any of its working parties, committees or groups).*

I believe that I only attended two of these general meetings, in late 1983 and September 1984. I felt the two Birmingham centres were ably represented by Dr Hill, and didn't feel the need to attend. I imagine I received minutes, but don't recall what was in them. I'm not sure, from reading the minutes, whether I attended in the afternoon. There seemed to be two parts to the meetings.

101. *During the period that you were involved with UKHCDO, please outline:*

a. *The purpose, functions and responsibilities of UKHCDO, as you understood them;*

- Co-ordinating aspects of haemophilia care.
- Maintaining a national [UK] register of persons with inherited bleeding disorders.
- Providing a high level interface between clinicians, scientists and the Haemophilia Society.
- Predicting future likely usage of factor concentrates.
- Providing a forum for contemporary issues in haemophilia to be discussed.
- Reporting back on major studies like hepatitis in haemophilia.

The coffee and lunch breaks probably offered an opportunity to discuss difficult problems and network generally. Almost certainly discuss and share concerns about AIDS.

I am not sure what the responsibilities of the UKHCDO would have been.

b. *The structure, composition and role of its various committees or working groups;*

I did not and don't now have any good idea of the committee structure.

c. *The relationships between UKHCDO and pharmaceutical companies;*

I have no knowledge of this.

d. *How decisions were taken by UKHCDO;*

They recommended at the end of the 1983 meeting that patients did not switch from concentrates to cryo. I suspect that was taken not by vote but by the sapiential authority of the senior figures and a lack of organized alternative opinion. With regard to other decisions by senior figures or officers I do not know.

e. *How information or advice was disseminated by UKHCDO and to whom;*

They seemed to communicate by sending out minutes. Newsletters did come out but my main recollection is that these were on Haemophilia Society paper, even if written by Dr Bloom. I know there is a lot of controversy now over how much the Society was involved in the content of the newsletters.

f. *Any policies, guidance, actions or decisions of UKHCDO in which you were involved and which relate to: the purchase, selection and use of blood products; self-sufficiency; alternative treatments to factor products for patients with bleeding disorders; the risks of infection associated with the use of blood products; the sharing of information about such risks with patients and/or their families; obtaining consent from patients for the testing and storage of their blood, for treatment and for research; heat treatment; other measures to reduce risk; vCJD exposure; and treatments for HIV and hepatitis C.*

I don't have any strong recollection of the UKHCDO's role in these areas then or now. I do not believe I was involved at all.

Section 6: Pharmaceutical companies/medical research/clinical trials

102. *Have you ever provided advice or consultancy services to any pharmaceutical company involved in the manufacture and/or sale of blood products? If so, please list the names of the companies and give details of the advisory or consultancy services that you provided.*

I do not recall ever doing so.

103. *Have you ever received any pecuniary gain in return for performing an advisory/consultancy role for a pharmaceutical company involved in the manufacture or sale of blood products? If so, please provide details.*

No, I don't believe so.

104. *Have you ever sat on any advisory panel, board, committee or similar body, of any pharmaceutical company involved in the manufacture or sale of blood products? If so, please provide details of your involvement and of any financial or other remuneration you received.*

No.

105. *Have you ever received any financial incentives from pharmaceutical companies to use certain blood products? If so, please provide details.*

Certainly not.

106. *Have you ever received any non-financial incentives from pharmaceutical companies to use certain blood products? If so, please provide details.*

No. In relation to the CMV prevention study discussed above at 94.2 I suppose there was an incentive to use Venoglobulin because the company was able and prepared to provide high-titre anti-CMV batches for no extra cost. At this distance in time I don't recall why we used the standard Venoglobulin. All products were purchased through pharmacy and I don't think I was involved in that. But other immunoglobulin preparations did exist, such as Sandoglobulin, inter alia.

107. *Have you ever received any funding to prescribe, supply, administer, recommend, buy or sell any blood product from a pharmaceutical company? If so, please provide details.*

No.

108. *What regulations or requirements or guidelines were in place at the time concerning declaratory procedures for involvement with a pharmaceutical company? If you were so involved, did you follow these regulations, requirements and guidelines and what steps did you take?*

At that time, in the 1980s, I did not think it was expected or required to declare interests like it is now. I do not recall when that requirement came in.

109. *Have you ever undertaken medical research for or on behalf of a pharmaceutical company involved in the manufacture or sale of blood products? If so, please provide details.*

No.

110. *Have you ever provided a pharmaceutical company with results from medical research studies that you have undertaken? If so, please provide details.*

No, not as I recall. It is possible I shared the results of the CMV Venobulin study with the local representative.

111. *If you did receive funding from pharmaceutical companies for medical research, did you declare the fact that you were receiving funding and the source of the funding to your employing organisation?*

Not applicable.

As an additional point, during the period 1995 and 1998 I was the Scientific Secretary, and Chairman of the Scientific Advisory Committee, of the British Society for Haematology. Part of my role was to organise the Annual Scientific Meeting of the Society, so I organised three of these. Doing this meant obtaining sponsorship for the meetings to ensure they at least broke even. In order to do this I had meetings with a large number of pharmaceutical companies' representatives. Some of these marketed blood products, particularly immunoglobulins. I don't remember whether some of these also sold clotting concentrates – quite possibly. I gained no pecuniary advantage personally – all transactions were through the Society's commercial arm, BSH Conferences Ltd. But I did have regular contact with pharmaceutical representatives.

Section 7: Other issues

112. *The questions above have focused on the care and treatment of patients with bleeding disorders at the Birmingham Centre. The Inquiry understands that your work at Birmingham was not solely concerned with the treatment of bleeding disorders and that you became a professor of transfusion medicine in 1996. Please describe the role you have played (whether at Birmingham, or Glasgow Royal Infirmary or elsewhere) in overseeing, managing, administering or advising with regard to (i) blood transfusions and (ii) blood products (other than those used to treat bleeding disorders). In particular, please address, insofar as relevant to your role, the following matters:*

I worked in Birmingham for ten years, with responsibilities in three main areas. I was joint director for the Haemophilia Unit, as described above, during the

emergence of the HIV epidemic in people with haemophilia from 1983 until July 1993.

I was also responsible for the patients with Sickle Cell Disease, developing the clinic and establishing a community service for sickle cell patients which endures to this day.

I also led the Bone Marrow Transplant programme, which grew from nothing to around 40 cases a year.

I also had laboratory based research interests in multiple myeloma.

I was also responsible for the supervision of the hospital blood bank at the Queen Elizabeth Hospital. It was really after the HIV issue arose that my interest in blood transfusion safety developed.

a. *Provide an overview of your role, explaining if and how it changed over time.*

   In Glasgow I only had one job, running the BMT Unit with some general haematology work. Because I had haemophilia experience I occasionally – meaning rarely – provided consultant oversight at weekends or out of hours to enable both of my consultant colleagues with an interest in haemophilia to attend meetings. I had no control or say over what products were used.

b. *Whether, and in what circumstances, you spoke to patients about the risks of blood transfusion and/or the risks of blood products (other than products used in the treatment of patients with bleeding disorders). If so,*

   i. *What (if any) information did you typically provide to patients about the risks of infection from transfusion?*

ii. *What (if any) information did you typically provide to patients about the risks of infection from blood products (other than products used in the treatment of patients with bleeding disorders)?*

Blood component safety did not figure greatly in the pre-transplant preparation of patients undergoing BMT. In the best cases the risk of death from transplant was 30%, and 50% was more usual. The risk in the UK from fresh blood components of HIV was low even before testing. I do remember talking to the transplant patients a few years later about the risks – theoretical or otherwise, never a term I liked – of variant CJD [vCJD] from transfusion and again the relative risk of transfusion versus the risk they were running from the transplant and also their underlying haematological disease seemed to them too low to be a concern. I got the feeling they would rather not have been bothered, but we continued.

c. *Were patients with whose care you were involved infected with HCV, HIV or any other virus in consequence of blood transfusion? If so please provide details (without identifying any individual patient).*

I did look after one patient who was infected with HIV by a platelet donation during his transplant, prior to my arrival in Glasgow. This donation had been tested for HIV with an early version of the test and it either missed the virus or it was a window period donation.

Another 20 or so transplant recipients were HCV positive. These infections had occurred prior to my arrival in Glasgow. In the immediate period before I arrived testing had been offered – I don't recall written consent being obtained – and all of the patients had been tested I think. Even this is 25+ years ago I am afraid. We had just over 100 survivors and about 20 were positive. This level of risk could be predicted from the prevalence in Scottish blood donors before the

introduction of HCV testing in or about September 1991. Each BMT recipient received on average 100 blood products – red cells, platelets, some plasma. No concentrates. The donor prevalence of HCV was I think about 1 in 500. It was 1:50 in the general population of parts of Edinburgh and Glasgow. If you were receiving 100 components it was a lottery. In fact many patients came to us for transplants from elsewhere had already received a lot of blood components for their leukaemia treatment. By 1993 we had HIV safe and HCV safe blood components and a very low risk of Hepatitis B.

d. *Were patients with whose care you were involved infected with HCV, HIV or any other virus in consequence of treatment with blood products (other than products used in the treatment of patients with bleeding disorders)? If so please provide details (without identifying any individual patient).*

Apart from blood component therapy [i.e. blood transfusion] and products for bleeding disorders I think the answer is no. This would include immunoglobulins and albumin.

113. *Please outline the work you undertook (whether in Birmingham or Glasgow) regarding the transmission and/or prevention of cytomegalovirus in transfused patients/patients treated with blood products (see, by way of background, your letter to Professor Cash dated 11 September 1992 [SBTS0000642_164]).*

This study is described above but for reasons I cannot now remember we didn't take it further in Scotland. If pressed, I think they didn't really have a high-titre anti-CMV product and the funding arrangement in Scotland was that polyvalent immunoglobulins were manufactured by PFC for the SNBTS and provided free of charge. So I had no budget to pay for high-titre anti-CMV.

114. *Please describe your involvement in the Scottish Hepatitis C Lookback and provide an account of how the exercise was undertaken with regard to Scotland.*

When I joined SNBTS in 1996 I was initially Director of the West of Scotland centre outside Glasgow. The lookback had been going on for a little while, was well set up and I wasn't involved. When I moved next year to be the National Medical & Scientific Director for SNBTS I had some oversight but this mainly consisted of essentially winding it up as a project. It isn't that we stopped looking back, it was just that after so many years there were so few donors returning a positive HCV result when their last donation had been before testing began in 1991 that we didn't need a team of people. It could be done by the individual donor consultants.

115. *Please set out your knowledge of, and involvement in, the roll out of recombinant factor products in Scotland.*

During the concerns over vCJD and the possibility that it may be transmitted in blood components and plasma products, directors of public health in Scotland, mindful of the recent HIV and HCV disasters, advised that recombinant products should be used instead of plasma derived clotting factors. Thereafter my involvement was in managing the downsizing and eventual closure of the SNBTS Plasma Fractionation Centre. I had no involvement in the provision or supply of recombinant factor products.

116. *Please outline your involvement with discussions relating to and the establishment of an HCV national registry.*

My recollection of this is that it was a registry of people with HCV with a known date of infection. I'm not sure that I was involved in setting it up. I do not think so.

117. *You wrote to the then Chief Medical Officer (Sir Kenneth Calman) in March 1998 [DHSC0004583_137], setting out your "personal view that we must 'future proof' our blood supply against the potential for unknown infective agents by producing safer and more pure products, targeted more carefully to patients who truly need and will benefit from them, in an environment*

where patients receive information about their choices with regard to transfusion support". Please explain the concerns that prompted your letter and explain whether, and if so how, those concerns were addressed.

I might not have had the temerity to write to Sir Kenneth had he not been the immediate past CMO in Scotland. What was crystallising in my mind and of others was that with vCJD being a new threat we had to come up with a new approach to improve transfusion safety. Working hard to make the transfusion or plasma products safe was essential but no longer sufficient. The ideas were developing that we needed a programme of improved transfusion practice in hospital. Consent to transfusion was something I felt was overdue but the logistics was daunting and I did not detect much support for it. Over a million red cell units were transfused annually in the UK. In Scotland, my colleague Brian McClelland had published in the British Medical Journal a survey reporting the number of errors in transfusion practice. This led to the formation of SHOT – Serious Hazards of Transfusion – which became responsible for recording errors. Brian and I had many discussions about what we could actually do and, somewhat against some peoples view, we set up a project called the Better Blood Transfusion Programme. We obtained quite generous funding from NHS Scotland. This was enough [£2,700,000 over three years] to put a specialist nurse into each large hospital in Scotland to provide transfusion training, monitor errors and, crucially, seek to reduce the number of red cell units transfused by 10%. We failed but did reduce by 9%. I was confident, from my years working in hospitals, that there was significant over-transfusion. Studies such as those by Hebert in ITU, and others auditing orthopaedic and cardiac surgery, had shown either variable transfusion use with no difference in outcome, or a benefit of less transfusion. This ultimately led on to the current 'Patient Blood Management' that delivers a lot of what we hoped for years ago. I am not sure what happened to any initiative from the CMO in England.

118. *The enclosed minutes of a meeting on 13 June 2001 (involving haemophilia centre directors, SNBTS directors and the Scottish Executive Health Department) [SBTS0000845] record (at paragraph 14) you stating that*

"consent to transfusion needs to be brought in but this must be done without disturbing the donor base". Please explain what you meant by this.

There was a view in the UK blood services that donors might stop donating if there was ever any question about the safety of blood. I did disagree with some colleagues about how fragile donors were regards to stopping donating, and my view was that we should do what we had to do regardless and deal with any consequences in terms of blood shortages if that happened. But it never did. My statement here reflects the anxieties of colleagues that I didn't share, but felt I had to respect, that telling patients about the risks of transfusion would somehow upset or deter donors. We had survived having to defer [i.e. reject] previously transfused people as donors due to vCJD worries with no loss of donor confidence so I wasn't personally concerned about the donor base. We were still collecting and transfusing too much blood in Scotland anyway.

119. *When, in what circumstances and in what capacity did you become aware of the risks of transmission of vCJD associated with the use of blood and blood products?*

There was a growing concern about Mad Cow Disease / BSE through the 1990s which culminated in the paper Will RG et al, '*A new variant of Creutzfeldt-Jakob disease in the UK*' (*Lancet*, 6 April 1996, 347, 9006, 921-925) **[WITN4032019]**. This was when I was joining the SNBTS as Regional Director in Glasgow as well as taking up the Chair in Transfusion Medicine at the University of Glasgow. So vCJD became a concern for me as soon as I joined SNBTS. For quite a few years we were supposed to use terms such as there being a 'theoretical' risk of vCJD being transmitted by blood transfusion. This was reflected in the early requirement to recall batches of product that included a donation from a person found to be suffering from vCJD. In the end, the risk from vCJD from fresh blood components turned out to be real but very low. I don't believe plasma products have ever been shown to transmit vCJD.

By 25 November 1997 [printed footer states 21/01/98 but may be date of printing] I issued a briefing note with wide distribution. The version provided is annotated and may be a late draft. This states in particular the advice that '*blood and blood products should only be given to patients who have a serious clinical need…. The [sic] SNBTS will help to ensure that blood and blood products are only used when properly indicated*.' **[BART0002129_017]**. I recall at this time that the prevailing view of expert advisory committees was that there was a low risk from transfusion but there was a lot of media attention from alternative sources - including by now the internet - expressing more serious concerns.

Not many months later as evidence emerged there was a switch away from watch and wait to acting. The exclusion of UK plasma was ostensibly due to avoiding disruption from frequent recalls of product batches containing a donation from a person with vCJD.

My position on issues of surveillance, tracing and providing information are described in my response to the CJD Incidents Panel proposals **[NHBT0009503_002]**. As far as I am aware the requirement to obtain consent prior to transfusion of blood components had not been introduced by the time I retired. Most of the other issues in the Incident Panel correspondence happily were hardly needed at all as there were only four individuals who are considered to have acquired vCJD through blood transfusion. All of these occurred prior to the implementation of universal leucocyte depletion [LD] of blood components. With only four cases beforehand, and the cases of vCJD acquired from beef falling, it isn't possible to say whether the implementation of LD prevented any cases, but it was the correct thing to do. I note that there have only been two cases of vCJD reported by the CJD Surveillance Unit since 2012, which is good news.

120. *Please describe your involvement with the process of responding to the risks of vCJD transmission and set out the processes that were put in place, to your knowledge, within Scotland and across the UK, both in relation to donors and in relation to recipients of blood/blood products, with regard to surveillance,*

tracing and the provision of information. You may wish to consider and refer to the various documents enclosed with this letter [BART0002129_017, LOTH0000085_009, 010, 011, BART0002128_003, NHBT0009503_001, 002, NHBT0002107].

The description of vCJD by the UK CJD Surveillance Unit in 1996 led to an immediate concern about the safety of blood transfusion and plasma products. There were discussions at high level between medical directors, infection experts, the CJDSU experts and Department of Health officials.

Donors

Previously transfused donors were excluded from donating in future. Despite concerns that this would lead to blood shortages due to a loss of donors or a loss of confidence by donors in the system no blood shortages occurred.

- Individuals who were diagnosed with vCJD were asked if they had ever given blood. If yes then the blood service in the country where they lived was informed. This began probably in 1997 or early 1998. Recipients of any blood transfusions from such donors were then identified and contacted - I think this happened.

- Donations that went to be made into plasma products led to the product batches being identified and the involved batches recalled through a formal process. This would have been notified to the medicines regulator, then MCA, latterly the MHRA.

- Sometime in about Q1 1999 UK donors were not used for plasma products at all. Scotland identified plasma supplies from Germany and the US [volunteer non-remunerated donors]. Once non-UK products were available existing stocks of UK[Scottish] derived plasma products were recalled formally and as far as possible all product accounted for

and quarantined prior to destruction. The details are described in **[LOTH0000085_010]** provided on 11 December 1998.

- With regard to UK donors there were some issues around the sharing of information that concerned me at the time. I felt that any donor who developed vCJD in the UK should be reported to all four territorial blood services because donors can, and do, donate away from home sometimes - particularly during some emergency such as the first Gulf War and 9/11. We did achieve this degree of communication after discussion with the CJDSU and the departments of health, but not until c.2004 [I wrote to the then chair of MSBT in September 2004 about this **[NHBT0002107]**].

Recipients

I may need to do more research into what was done for all recipients.

- For people with haemophilia a decision was taken by Regional Directors of Public Health that in Scotland all Factor concentrates should be replaced with recombinant - non-plasma derived - product. By 2001 **[SBTS0000845]** this seems to have been enacted but it is noted that SNBTS was still producing double inactivated Factor VIII [Liberate HT] due to shortages of recombinant. My memory is that there were only a limited number of recombinant manufacturers and there had been issues with some factories not being able to produce enough product.

- This document **[SBTS0000845]** of a meeting between the Haemophilia Directors in Scotland and SNBTS was chaired by the then CMO Scotland, Dr Armstrong. This states that at that time recipients of implicated batches of plasma products had not been notified but goes on to mention guidance that this is about to change.

- There were complex systems developed across the UK regarding how to deal with people who may have come to be at risk of vCJD through blood in all its manifestations. My letter to the Clinical Incidents Panel in response to their consultation paper mentions some of this **[NHBT0009503_002]**. I believe that we had to report at least one possible case under these procedures where a donor subsequently died of vCJD but I do not recall the details of this.

121. *Para. 2.7.11 of the enclosed minutes of a meeting on 22 November 2000 [NHBT0001972] record you: agreeing about the potential scale of the vCJD problem and that there was a need for further action; stating that the government was in danger of revisiting the errors made with regard to BSE; and disagreeing with the expressed view that "we are doing as much as we can". Please explain your concerns and views, as expressed at that meeting, and set out whether and if so how those concerns and views were addressed.*

[NHBT0001972] records a meeting of many senior figures in the UK and Irish blood services. It reads as a brainstorming session in many ways. The Phillips report on BSE and vCJD had been published on 26 October 2000 and this meeting was held four weeks later, I assume to consider it's relevance to blood services. There had also been the recent publication of the transmission of BSE by blood transfusion in sheep. Year 2000 was also the year with the greatest number of cases of vCJD. So the atmosphere was perhaps a little febrile.

We had implemented universal LD in 1999, but more needed to be done.

I believe I would have wanted more information for patients prior to them giving consent for transfusion. Consent was important because it provides an opportunity to discuss blood sparing/avoidance measures, even if transfusion is acceptable. The template for best practice here would be the management of people who refuse transfusion. Consent for transfusion was not achieved in the UK when I left in 2010.

Senior colleagues and I wished to progress improved blood transfusion practice as discussed above at 117. Paul Brown was an eminent scientist in the USA with knowledge of CJD as I recall. My interpretation of his comments is that he believed we were doing as much as could be done to make blood and plasma products and blood components safe. He was not a clinician in the UK and would probably have been unaware of any deficiencies in transfusion practice or variations in blood usage between hospitals. These would have been areas where much more could be done. In the two years following this I worked with others to encourage improved transfusion practice by seeking and obtaining funding for the Better Blood Transfusion project that began in 2002.

122. *What if any involvement have you had with the different trusts or funds (the Macfarlane Trust, the Eileen Trust, the Macfarlane and Eileen Trust, the Caxton Foundation, the Skipton Fund, SIBSS) which were set up to provide financial support to people who had been infected? Please provide full details of any involvement, either on your own behalf or on behalf of applicants.*

I had some involvement with assisting patients with their applications to the Macfarlane Trust. Although familiar with the existence of the other Trusts I do not recall having any dealings with them either directly or on behalf of others.

123. *Please provide details of any complaints made about you (insofar as relevant to the Inquiry's Terms of Reference) to your employer, to the General Medical Council, to the Health Service Ombudsman or to any other body or organisation which has a responsibility to investigate complaints.*

As stated in paragraph 4 above, I was named in a complaint to the GMC by a patient I had not treated but the matter did not progress past the Case Examiner stage and concluded with no action being taken on my registration.

124. *Please explain, in as much detail as you are able to, any other matters that you believe may be of relevance to the Infected Blood Inquiry, having regard to its Terms of Reference and to the current List of Issues.*

What happened to the people with haemophilia was terrible enough regarding the virus infections.

It was made so much worse by the failure of authorities at so many levels to provide support for them or their families. Repeated refusals of funding or facilities in Birmingham, eventually support was provided but with sums reduced. In the West Midlands AIDS money had been returned to central government unspent, and other funds used to put right GU services that had been neglected. Perhaps this had something to do with the stigmatisation of people with HIV and the then 'guilt by association' with groups perceived to be unworthy. Eventually the various trusts were established to help to some extent.

The response to vCJD seemed so different. A support package was put in place to provide medical support and financial security to those affected. There seemed to be an acceptance that government policy in respect of changes to animal food practices had contributed to the condition. The Public Inquiry into BSE and vCJD reported in 2000, when BSE was waning but vCJD was at its peak. All of the relevant experts were not only alive but still active.

I appreciate the difficulties of this Inquiry when so many of those affected are deceased, and so many of the experts are also dead. Those of us who are retired now have limited access to original records and memories struggling to stretch back 35 to 40 years to be of as much assistance as we would wish.

Documents

125. *Please provide copies of the following documents, referred to by you in your evidence to the Archer Inquiry [ARCH0000443]:*

a. *the papers that you refer to as suggesting that blood was collected at the Centre for testing in January 1985 (see your statement to Archer: "I have had sight of papers suggesting that we collected blood for such a test as early as January 1985");*

b. *the note of the meeting you refer to in which there was discussion about the possible meanings of test results (see your statement to Archer: "I have seen a note of a meeting in which an eminent virologist stated ...");*

c. *the records that you have which suggest counselling was not available until 1987 (see your statement to Archer: "what records I have suggest this did not happen until 1987");*

d. *the papers or other materials that you referred to as suggesting that exposure to HIV occurred between 1981 and 1984 - in your statement to Archer you referred to p.69 of Garfield's book (which the Inquiry does not need you to provide) and then stated "others suggest 1981-1984".*

I have asked ex-colleagues in the SNBTS IBI team to look for these documents. They have found a copy of my submission to Archer but it is clearly a scanned draft in their archive for the Penrose Inquiry. They are still looking for the others.

Statement of Truth

I believe that the facts stated in this witness statement are true. I understand that proceedings for contempt of court may be brought against anyone who makes, or causes to be made, a false statement in a document verified by a statement of truth without an honest belief in its truth.

Signed GRO-C

Dated 2nd October 2020

Table of exhibits:

Date	Notes/ Description	Exhibit number
September 2020	Professor Franklin's CV	WITN4032002
24.01.86	Letter from Dr F Hill to John McQuay	WITN4032003
01.12.75 and 08.12.75	Transcript of 'World In Action - "Blood Money"'	WITN4032004
27.02.06	Department of Health: Self-Sufficiency in Blood Products in England and Wales – A Chronology from 1973 to 1991	WITN4032005
1994	Crawford RJ et al, '*Prevalence and epidemiological characteristics of hepatitis C in Scottish blood donors*' (*Transfusion Medicine*, 1994, 4, 121-124)	WITN4032006
30.03.91	Contreras M et al, '*Low incidence of non-A, non-B post-transfusion hepatitis in London confirmed by hepatitis C virus serology*' (*Lancet*, 1991, 337(8744), 753-757)	WITN4032007
04.05.83	Letter from The Haemophilia Society	WITN4032008
December 1983	Stevens RF et al, '*Liver disease in haemophiliacs: an overstated problem?*' (*British Journal of Haematology*, December 1983, 55(4), 649-655)	WITN4032009
29.06.85	Hay CRM et al, '*Progressive liver disease in haemophilia: an understated problem?*' (*Lancet*, 29 June 1985, 325, 8444, 1495-1498)	WITN4032010

29.01.85	Minutes of the 1st meeting of the Expert Advisory Group on AIDS	WITN4032011
Undated (late 1984)	Draft paper: 'AIDS and its prevention in the United Kingdom – A position paper'	WITN4032012
16.10.91	National Audit Office: HIV and AIDS Related Health Services	WITN4032013
December 2001	Dow BC et al, '*HTLV antibody screening using mini-pools*' (*Transfus Med*, 2001 Dec, 11(6), 419-422)	WITN4032014
July 2007	Franklin IM et al, '*Benefits of a blood donation archive repository: international survey of donor repository procedures and Scottish experiences*' (*Transfusion*, July 2007, 47, 1172-9	WITN4032015
15.12.07	Franklin IM, '*Prevention of Hepatitis C in Japan: a lesson for us all*' (*Lancet*, 15 December 2007, 370, 371-471)	WITN4032016
28.03.09	Franklin IM, '*Prevention of rhesus haemolytic disease of the fetus and newborn*' (*Lancet*, 373, 1082 [correspondence])	WITN4032017
19.05.01	Webster G et al, '*Protecting travellers from hepatitis A*' (*BMJ*, 2001, 322, 1194-5)	WITN4032018
06.04.96	Will RG et al, '*A new variant of Creutzfeldt-Jakob disease in the UK*' (*Lancet*, 6 April 1996, 347, 9006, 921-925)	WITN4032019