Monday, 7 December 2020

(10.00 am)

(Proceedings delayed)

(10.19 am)

SIR BRIAN LANGSTAFF: Good morning, Dr Pettigrew.

THE WITNESS: Good morning, Sir Brian.

SIR BRIAN LANGSTAFF: Well, obviously you can hear me. You can see me as well?

THE WITNESS: Yes, I can, thank you.

SIR BRIAN LANGSTAFF: We can see you very well.

Let me apologise for the delay there has been this morning, both to you and to those who are watching remotely. In a moment I will describe the scene so that they know where we are and so that you can understand as well who you are speaking to. But it was an unfortunate delay in making sure that we had the right documents on the system so that you can be asked questions about them. So I'm sorry about that. It shouldn't have happened, but it has, but we're now ready to begin.

You're at home, I gather?

THE WITNESS: That's correct, yes.

SIR BRIAN LANGSTAFF: Your counsel, Simon Bowie, is elsewhere, I think?

THE WITNESS: Yes, they are elsewhere.

SIR BRIAN LANGSTAFF: Now, you are talking to a room here in London, in Fleetbank House, where there are, I think, four members of the legal team facing me. We have a person, Soumik, whose job it is to make sure that the documents are displayed on the screen and then we have three other members of the Inquiry staff, one of whom, Mary, will take the oath or affirmation in a moment or two.

You are being watched remotely by probably somewhere in the region of 150 to 200 other people from time to time. It's generally around about 150 during the evidence during the day. So you are talking to them as well as to us, okay?

THE WITNESS: Yes, thank you, Sir Brian.

SIR BRIAN LANGSTAFF: Mary, would you like to take the oath, please.

DR ANNA PETTIGREW, sworn

Questioned by MS RICHARDS

MS RICHARDS: Dr Pettigrew, can you hear and see me?

A. I can, thank you, and good morning.

Q. Good morning. I'm going to start by asking you just to help us with an overview of your career.

I understand from your statement and other materials you provided that you had various house officer jobs at the Royal Hospital for Sick

Children in Glasgow in the mid-1970s.

A. That's correct -- 1976 to '77.

Q. Then in early 1977 you took up a post as a senior house officer in Glasgow Royal Infirmary, and you stayed in that post until early 1979; is that right?

A. Until January. I left probably mid-January '79.

Q. During that time, you had some involvement with the treatment of patients, adult patients, with bleeding disorders. How much of your time was spent with bleeding disorder patients, and how much with more general haematology or other work?

A. Well, I wasn't involved in any haematology work but I was basically a medical SHO in the Department of Medicine at the time and -- but I also had a responsibility for helping with the haemophilia patients.

I would say that probably the bulk of my time was spent with general medical patients and my duties in haemophilia tended to be after the ward round in the morning when the patients came to get their treatment. I think I explained in my statement, the patients would phone first thing in the morning and then by the time the ward round finished, just about 11, they would be there and I would assist in giving the treatment. Because I don't think the

haemophilia sister at that time was able to perform venipunctures. Then obviously patients came in during the day, patients with haemophilia came in during the day. I would see them as well.

But I was also involved is in the on-call rota and what we call acute medical receiving, when the unit was responsible for admitting emergency medical patients.

Q. During the time that you worked at the Royal Infirmary, who were the consultants to whom you reported, insofar as the haemophilia patients are concerned?

A. It was mainly Dr Colin Prentice and Professor Forbes. I think Dr Davidson was a co-director but I really didn't have anything to do with Dr Davidson. He tended to deal more with the blood transfusion/blood product side. And Professor Lowe was also, I thought, a registrar, but I think he might have been a lecturer at that stage.

Q. And your statement tells us that at that time at the Royal Infirmary the main products being used for the treatment of patients with bleeding disorders, or haemophilia, were cryoprecipitate and NHS Factor VIII; is that right?

A. That's correct. Some commercial Factor VIII was used

but I think that was primarily if there was elective surgery, such as knee joint replacements, being carried out, and obviously if patients had an inhibitor, I think it would be FEIBA, the commercial product, would be used.

Q. Do you have any recollection as to whether DDAVP was used at the Royal Infirmary at that time?

A. Well, we started using DDAVP at that time because I think -- and you sent me a copy of a letter to The Lancet referring to its use. I think Professor Lowe was interested in trying to use DDAVP and see how effective it was and what side effects it might have.

Q. Did you at that time have any involvement in the decisions as to what treatments to use?

A. No, absolutely none.

Q. Can you assist us in terms of the kind of routine testing or monitoring that was undertaken for patients at that time at the Royal Infirmary? Were liver function tests undertaken routinely?

A. Yes. Obviously, we checked for hepatitis B, obviously sometimes we checked for Factor VIII levels and inhibitors, co-blood count and also LFTs. And because I knew that LFTs was part of the routine blood testing when I was at the Royal, I introduced that at

Yorkhill.

Q. Moving on to Yorkhill, you joined Yorkhill in May of 1980; is that correct?

A. Yes.

Q. And you remained there until February 1989?

A. Probably end of January '89.

Q. You were part-time. As I understand it, you did six sessions a week.

A. Yes. I did five mornings and one afternoon. On the Thursday afternoon we had the general haematology clinic, so I stayed on and assisted at the general haematology clinic on Thursday afternoons.

Q. You didn't do on-call work?

A. None at all, no. No, I mean, that was why I worked in the position of clinical assistant, which obviously didn't involve any on-call, and, you know, I had no responsibility for decisions, management, procurement, et cetera.

Q. You've anticipated my next question, which was to ask you -- no, no, what precisely was the role of a clinical assistant as distinct from a registrar or senior house officer or consultant?

A. Well, first of all, it was not a training post, and it was not a post in which there was professional progression. It was really a post which was more to

do with face-to-face, practical, day-to-day, clinical care of the patient. So, you know, it was more hands-on, if you like. And I think that Dr Willoughby at that time I think created the post, and employed me because he was looking for more assistance in dealing with the routine -- well, not routine, but with treatment for primarily patients with leukaemia and what we call solid tumours, children with cancer. And they were attending the day unit for injections of chemotherapy, procedures such as bone marrows, lumbar punctures. And if there was any problems, rather than go to the GP, the children would come to the day ward. And that was what, primarily, I was involved in.

Q. The consultants under whom you worked at Yorkhill were initially Dr Willoughby, then Dr Hann from the beginning of 1983, and then Dr Gibson from around 1987/1988; is that right?

A. That's correct, yes.

Q. You told the Penrose Inquiry and you told us that this was a post that was funded not by the NHS but by the hospital. What does that mean?

A. It was actually funded -- Dr Willoughby's department, like a lot of departments involved in treating cancer, were given donations, and he decided to use the departmental funds to fund this post which, as I say,

initially was primarily to assist with the practical treatment of patients with leukaemia and what we call solid tumours.

Q. You left in 1989 and retrained as a GP, and from 1990 onwards you practised as a GP.

A. Yes. I did my what we call -- in those days we called it your GP training year, in '89/'90, and I became a principal in general practice in 1991, October 1991.

Q. So you haven't worked in haematology as an area of specialty since 1989?

A. No.

Q. I'm going to start by asking you some questions about the patients, facilities and services at Yorkhill, and we will look at a handful of documents, Dr Pettigrew.

Soumik, could we have PRSE0002887, please.

Dr Pettigrew, this is a report that was prepared for the purposes of the Penrose Inquiry. It's just to give us some figures about the numbers of patients.

If we could go, please, Soumik, it's probably page 30 on the screen. That's it.

We can see here, Dr Pettigrew, if we look, it's a table headed "Number of patients registered at Scottish Haemophilia centres - 5 year intervals 1970 - 2011". We'll just look at the period when you

were there. If we pick it up -- if we go to the next page, please.

If we pick it up in 1980, we can see Glasgow RHSC, 55 patients with haemophilia A, 14 with haemophilia B, one with von Willebrand's disease, giving a total of 70 patients. And then if we look at the table below, which is for 1985, we can see 73 patients with haemophilia A, 20 with haemophilia B, one female patient with a Factor VIII deficiency, one with a Factor IX deficiency, and 13 patients with von Willebrand's disease, giving a total number of 108 patients.

Does that broadly accord with your recollection?

A. Yes. I mean, I couldn't have given you a figure for the number of patients I treated but I think that's -- well, obviously that's correct.

Q. Yes. I think we can see from that, that's the number of patients registered, according to UKHCDO data I anticipate.

Do you have a sense of at all of approximately how many of those patients were patients with a severe bleeding disorder?

A. I would think you're probably talking in the region of about 15 to 20, but that is a guess.

Q. Fair enough. Now obviously the hospital was concerned with the care of children. At what age typically did a patient cease to be the responsibility of Yorkhill and transfer to the care of the Royal Infirmary in Glasgow?

A. Well, as I referred to this in my statement -- oral evidence to the Penrose Inquiry, it really depended on the individual. I think at that time in Yorkhill officially children were admitted up to I think it was either 12 and three-quarter -- I think it was 12 and three-quarters age, but obviously children with a chronic condition could be maintained at Yorkhill for longer.

We tended to -- the other thing is, while children -- if children were admitted to Yorkhill, there was educational facilities, which of course there wouldn't be in an adult unit, so we tended to keep the boys at Yorkhill until they were about maybe 15 or 16 and then transfer them to the Royal Infirmary. And a lot would depend -- you know, if they were very mature, they might have been transferred at 15 but if they were immature we might have held on to them until they were 16 or possibly even 17.

Q. Soumik, we can take the document down, thank you.

Yorkhill's responsibility wasn't limited to Glasgow alone. It essentially provided a service for the whole of western Scotland; is that right?

A. Yes. I remember we even had a patient who had to come sometimes from one of the Western Isles and Ayrshire, south Ayrshire. I can't recall -- I heard Professor Ludlam talking about the Borders, and I don't recall any patients from Dumfries, but certainly the rest of Scotland, and we might have covered Dumfries. We might just not have had any children with haemophilia from there.

SIR BRIAN LANGSTAFF: What about Galloway, would that go with Dumfries?

A. Yes, Dumfries and Galloway would go together. I think -- well, I think, strictly speaking, they are under the West of Scotland, but I think there was a crossover between Edinburgh and Glasgow with that area. Certainly, children with leukaemia we had children from Dumfries and Galloway.

MS RICHARDS: How did Yorkhill manage the relationship with other smaller hospitals or non-specialist hospitals that might be the first port of call for such patients? Were there any systems or protocols in place?

A. I think -- I don't think there was any systems or

protocols in place but I think most haematologists, certainly those who were in the Greater Glasgow area, would send their patients with haemophilia to Yorkhill. Obviously, somewhere like the islands, it was a bit different, and if -- I can't remember -- but I don't think there was a patient with severe haemophilia in the islands but, obviously, if somebody in the islands needed treatment, they would have to be flown down and I think, you know, that's what tended to happen.

Q. To what extent at Yorkhill did the service operate autonomously? Did it set its own policies or did it look to the Royal Infirmary or elsewhere for guidance?

A. I think Professor Willoughby was an autonomous practitioner. Dr Hann, I think, was more -- there was more communication with the Royal Infirmary, I think, after Dr Hann, and certainly with Dr Gibson, but Dr Willoughby was autonomous.

Q. During the time when Dr Willoughby was consultant, did you have meetings with Dr Lowe or any others from the Royal Infirmary to discuss patients or policies?

A. No, no formal meetings. I have to say that Professor Lowe's wife is a good friend of mine and I have been in contact with Professor Lowe, you know, all these years and, you know, sometimes he would keep

me up to date with what was happening in the Royal Infirmary and perhaps what they were introducing, and that sort of thing, not really any discussions about patients.

Q. In terms of the facilities at Yorkhill when you were first working there in the early part of the 1980s, your evidence suggests that there wasn't really a haemophilia centre as such. Could you describe to us physically what facilities there were for patients with bleeding disorders and how and where they would be seen, typically?

A. Yes. All the haematology patients who require treatment or procedures would come to the day bed area, and the day bed area was a ward that basically was a facility used by all specialties in the hospital, and it consisted of two, I think, four-bedded areas, a waiting room and two treatment rooms, one of which was slightly larger than the other and might have been considered as a small minor surgery theatre. There was a small treatment room and the Haematology Department tended to use that small treatment room and one of the bedded areas tended to be used by the haematology patients.

There was a haematology sister, I think it was Sister Wright, and then Sister Murphy came in 1983,

and we had -- we worked closely with the dental department, so there was the patients with haemophilia were encouraged and, I think, given appointments to come and see the dentist on a fairly regular basis in the hospital. It was Mrs Dunne at that time, and I can't remember who succeeded her, and also there was close liaison with the orthopaedic surgeons.

So during the day -- well, initially when I started at Yorkhill, and I think before, apart from the patients who were regular attenders, the regular attenders would tend to come straight to the day bed area because, obviously, the haemophilia sister was there. Other patients might go to casualty first of all, and out-of-hours they would go to casualty as well.

Q. The evidence that you gave to the Penrose Inquiry would suggest that, prior to Professor Hann's arrival, there wasn't a regular clinic for bleeding disorder patients; is that right?

A. There wasn't and I remember after Dr Hann arrived I remember Professor Lowe telling me that they were having regular clinics and I discussed it with Dr Hann and he agreed whole-heartedly that we should start having these regular clinics and he managed to organise it with the hospital management and obtain

a room in the out-patient department, initially once a month but we increased the frequency as time went on.

Q. In your oral evidence to the Penrose Inquiry you described it, prior to those new arrangements after Dr Hann's arrival, that children weren't really reviewed but they came in as and when they needed to; is that correct?

A. That's correct.

Q. At some point, I think again your oral evidence to the Penrose Inquiry puts it possibly 1984/1985, there were some new facilities for the centre or for the service, a move toward 7A; is that correct?

A. I think it was a bit later. I think it was about '87, and the haematology unit was given a whole ward and the haemophilia was given a room at the end of the ward. It used to be -- I remember when I worked as a JHO in Yorkhill it was a laboratory room. So we were given that room and it was just inside the door of the ward, so it was quite easy for the parents and the patients to come in to see us there.

Q. Between 1980 and 1983, what other medical staff would have been involved with the care of patients with bleeding disorders, other than your role, Dr Willoughby's, were there other doctors, registrars,

SHOs involved?

A. There was usually either an SHO or registrar who was rotating through Yorkhill for possibly six months from adult haematology, as part of their training, and Dr Willoughby also had a full-time leukaemia research fellow. He also had -- there was, I think, three of us part-time. There was Dr Ann Campbell, who probably left about 1984 and she, like me, was a clinical assistant, and there was a Dr John Celt, who again was there until about 1984. He was a GP in Stirling and came to the day bed area, I think, three mornings a week and then there was myself.

Q. It sounds as though the service that you are describing, Dr Pettigrew, was predominantly a cancer service that also looked after patients with bleeding disorders. Is that a fair way of viewing it?

A. I think it is and, certainly, the bulk of my involvement was with -- not with patients with bleeding disorders, certainly until after Dr Hann came.

Q. We've heard (and you may have, if you followed the evidence of Professor Ludlam, heard it last week) that Glasgow Royal Infirmary and Edinburgh Royal Infirmary effectively had a status equivalent to haemophilia reference centres. Do you know whether the service at

Yorkhill had any particular status or was characterised in any particular way?

A. Well, I wasn't really aware at the time of any particular character and I noticed in Dr Willoughby's statement to the Penrose Inquiry that he insisted that he was -- we were never a haemophilia centre.

Q. Did you have any involvement with the submitting of annual returns to Oxford for the patients at Yorkhill?

A. Well, in actual fact, no, I didn't and, as I have been listening to the evidence given by clinicians, you know, the thought occurred to me: did we send returns? Who did it? And I think it must have been -- it was possibly the chief technician in the lab that did it but, you know, I don't really know who did it, but certainly I wasn't involved.

Q. The chief technician in the lab, is that Mr Jewell?

A. Mr Jewell initially, and then he was replaced by Robert -- I can't remember his second name, sorry, and I should but I can't remember.

Q. So, in terms of proportion of time spent on the care of patients with cancers and patients with bleeding disorders, approximately how much of your time do you think, or what proportion of your time, was spent on the care of the children with bleeding disorders and what proportion spent on other disciplines?

A. Well, initially, it would have been probably 90 per cent non-bleeding disorders and, I think, as I said in my statement, as time went on and I think as the parents and the patients got to know me, and some of the parents had brothers that I had known in the Royal Infirmary, I think as time went on, I became more involved with the parents and the patients as they came to the day bed area and, after Dr Hann arrived, again my involvement increased.

By the time I left, I would say it was probably, maybe 50/60 per cent bleeding disorders and maybe 40 per cent -- that's a very rough figure really.

Q. What proportion of Dr Willoughby's time was spent on the treatment of children with bleeding disorders and what proportion spent on cancers or other areas?

A. I think the majority of Dr Willoughby's time would have been spent -- I remember he was responsible for running the lab, he was responsible for haematology problems that arose in the maternity unit, which was attached. He was responsible for the treatment of all patients with haematological malignancies and, at that time, he also dealt with a lot of patients who had what we call solid tumours, other cancers in children, as well as bleeding disorders.

I think, as I say, when I arrived he had set up his home therapy programme and I think he had established most of the boys who had a severe degree of haemophilia on that home therapy programme. So when I arrived there was really only those patients with severe haemophilia who were younger and who weren't on the home therapy, and patients who were less severely affected and von Willebrand's that were coming to the day bed area. So the majority of his time was definitely spent with patients -- with other haematological patients.

Q. The way you put it in your evidence to the Penrose Inquiry was that Dr Willoughby was running multiple services?

A. Absolutely, yes. I think Dr Hann was quite -- I don't know surprised, he obviously knew the job that he was coming to but I think he stated in his evidence that it was one of the most underfunded and probably understaffed. I think there's about six haematology -- Dr Gibson can give you better figure, but there's that sort of number of consultants now at Yorkhill.

I should add, at some point, I think, but it was probably after Dr Hann arrived, there was a consultant oncologist appointed and both in

Dr Willoughby's time and Dr Hann's time, there was close co-operation -- and with the radiotherapist oncologist at the Western Infirmary, as well, who dealt with the radiotherapy treatment of patients with leukaemia.

Q. How often would you discuss issues relating to the care of patients with bleeding disorders with Dr Willoughby?

A. I think if there was anything that was other than routine, if there was any patient who came -- well, the same with all the patients who came to the day bed area. If there was anything I felt I needed to discuss with Dr Willoughby, any problems that I felt weren't straightforward or within my remit, I would discuss it with Dr Willoughby. So that would *(unclear)* as well.

Q. Again, during the time that you were there in 1980 to 1982, when Dr Willoughby was still there, how often, and in what kind of circumstances, do you recall parents and patients with bleeding disorders actually seeing and being seen by Dr Willoughby, rather than by you?

A. I think, if they were -- certainly if they were admitted to the ward they would be seen by Dr Willoughby because we all did a ward round in the

morning. Before we started the work in the day bed area, we had a ward round and we also had a meeting, a brief meeting, in Dr Willoughby's office before we started, and that was an opportunity to bring up any problems that I had encountered as well.

But I don't think that he spoke very often to the parents in the day bed unless there was a problem and he'd obviously worked with Sister Wright before I came, and she would be aware of the situations in which Dr Willoughby's opinion was required, as well.

Q. Do you know the extent to which Dr Willoughby had sought and obtained advice from others about the care of patients with bleeding disorders?

A. I can't really say. I know that, and you'll be aware, that Dr Willoughby wrote a textbook on paediatric haematology which is quite highly -- or was highly regarded at the time, and he did have a chapter on bleeding disorders with many references.

Dr Willoughby was the type of clinician that tried to keep abreast of developments. I think you read in his statement about contacting a paediatrician in America about bone marrow transplants. I presume he went to the UK, even though we weren't a haemophilia centre -- I think he probably -- I presume he went to some of the UK and Scottish haemophilia directors' meetings as

well. But, you know, that's as far as I can say regarding that.

Q. Was material produced by UKHCDO, minutes or reports that might be shared at directors' meetings, did that ever get disseminated to you and your more junior colleagues? Sorry, was that no?

A. Yes, sorry. No.

Q. The transcriber can't pick up nods and shakes of heads.

Then, in terms of the impact of Yorkhill's responsibility for patients across the west of Scotland, in the Penrose report -- I'm not proposing to take you to it, Dr Pettigrew, but there's a description in the Penrose report of the smaller hospitals gravitating gradually towards Yorkhill?

A. Yes.

Q. To what extent did that impose a logistical burden or practical burden on the service at Yorkhill?

A. I don't think it imposed a burden that was apparent. I mean, those figures you showed me, the numbers between 19 -- between 1970 and 1980 there was obviously quite an increase in the numbers of patients being treated at Yorkhill, which would obviously represent that gravitation, and I think towards the end of probably '77, well, maybe '78, Dr Willoughby

had procured the services of a haemophilia nurse, so that would have helped to absorb the extra workload.

But I wasn't aware of an impact as such.

Q. Dr Willoughby left Yorkhill at the end of 1982?

A. Yes.

Q. Do you know anything, in terms of your own personal knowledge, about the circumstances of or reasons for his departure?

A. No, really only what I have read in his statement and Dr Hann's statement. At the time -- I mean, I should have known at the time because I should have remembered that there was that industrial action. And Dr Willoughby was a very committed, highly professional man who was dedicated to his patients and I think he found it -- obviously must have found it appalling, or to him appalling, that not everybody appeared to have that same dedication as he had.

Q. Did you have any conversations directly, yourself, that you can recall with Dr Willoughby about his leaving?

A. Not that I can recall. I think he just announced that he was leaving. He had been offered a job in Perth.

Q. I know from your earlier evidence that you yourself weren't involved in out-of-hours on-call care, but how was out-of-hours care arranged for patients with

bleeding disorders, to your knowledge?

A. Out-of-hours the paediatric -- usually registrar I think, or maybe initially GHO but probably a registrar, would see the patient in casualty and would contact whoever was on-call for haematology. That might be Dr Willoughby, it might be the rotating registrar, it might have been the leukaemia research fellow. And obviously if there was anything that they were -- felt that was outwith their level of knowledge, they would contact Dr Willoughby.

Q. I am going to ask you next about the treatment policies at Yorkhill and what products were used for the treatment of patients.

We'll start by looking at the same document we looked at before, PRSE0002887, please. If we go, Soumik, I think to page 25.

It's page 19 of the internal pagination, Dr Pettigrew, if you're looking at a hard copy.

We can see here it's headed Glasgow Royal Hospital for Sick Children, and we've got figures from 1977 onwards of the kind of volumes of products used.

Now I'm going to take you to a different document rather than go through this line by line, Dr Pettigrew, but I just wanted to put that up *so that people can see where the next document has come from.*

If we just go over the page, Soumik, we can see that the data here for the Penrose Inquiry carries on into 1990 and indeed 1991, which is after you left.

Could we then have INQY0000242, please, Soumik.

This is a table that's been prepared -- I'm grateful to my colleague, Ms Scott, for this -- taking the data from the report that we've just looked, and so we'll use this because it's slightly easier to read.

We can see if we look, first of all, at table 1, Dr Pettigrew, and picking it up from 1980 onwards and looking at the percentages, very little cryoprecipitate is used, and the bulk of the treatment, 99.9 per cent, is with Factor VIII concentrates. It's fair to say, if we just look down the figures all the way through to 1984, 1985, we can see that pattern continues. The vast majority of treatment is with concentrates rather than cryoprecipitate.

Is that consistent with your recollection?

A. Yes. I noticed that the first table that you produced, obviously there was more cryoprecipitate used until the introduction of home therapy.

Q. Yes.

A. So in 1977 there was 41,930 units. I don't know what

percentage that was. It appears that concentrate was introduced first in 1977 with more '78/'79, which I think was when Dr Willoughby was introducing the home therapy. But certainly -- and remember that these patients on home therapy were also on prophylactic therapy, so they were using a lot of concentrate.

Q. Yes, and I'm going to come on to the home therapy programme shortly.

Then if we just look at table 2, towards the bottom of the page, we can see that, in terms of the source of the Factor VIII concentrate, in 1979 it's 28 per cent from PFC, *so the NHS concentrate*, 72 per cent commercial. In 1980 it's 19 per cent NHS, 81 per cent commercial. In 1981, 42 per cent NHS, 52 per cent commercial. In 1982, 51.5 per cent NHS, 48.5 per cent commercial.

If we go over the page please, Soumik, we can then see in 1983 there's a shift, and the majority then, and this is obviously when Dr Hann has arrived, is NHS concentrate, with only a small amount, 3 per cent, being commercial, and then very little commercial in 1984 and none in 1985 onwards.

Again, does that reflect broadly your recollection?

A. I think it does, yes.

Q. The commercial product from 1979 that was used was, according to the table that we saw in the report presented to the Penrose Inquiry, all from Armour. It was the Factor VIII product. Did you ever have any discussions with Dr Willoughby about why that particular commercial product was chosen?

A. I didn't have any discussions about that, why that particular product was chosen. I did remember asking him why commercial concentrate was being used, because we weren't -- I wasn't used to using it in the Royal Infirmary, and his response to me was that when he was starting his home therapy programme, SNBTS could not supply sufficient amounts or reliable amounts for him to provide for his home therapy programme.

Q. Were you aware at the time, and did you ever discuss with Dr Willoughby if so, the fact that in Edinburgh the policy was essentially the opposite one: to use SNBTS products and avoid commercial as much as possible?

A. I would never have, no -- I wouldn't have known what the policy was in Edinburgh.

Q. Do you know whether Dr Willoughby made any attempts to get more SNBTS product?

A. I can't really answer that, Ms Richards. I wouldn't know if he had or not.

Can I just point out that in chapter 21 of the final report of the Penrose Inquiry, there is a reference -- do you want me to give you it? -- to a difficult or slight shortage of SNBTS '78/'79 and '79/'80, and that would be the year, '79, that Dr Willoughby had started his home therapy programme.

Q. So was it your impression that ease of access to the product was at least a contributing factor to Dr Willoughby's use of commercial products and -- sorry -- and that having started on commercial products for home therapy he essentially carried on with that?

A. Yes, I think it was a reliability of supply. I notice that in his statement he also talked about ease of use and other reasons for using it, but I was led to believe by him that his main concern was having a reliable supply for his patients. And the commercial concentrate tended to be used on the patients who were on home therapy and the NHS for patients who were not.

Q. You are correct that Dr Willoughby's own statement to the Penrose Inquiry emphasised the question of the convenience of the commercial concentrate rather than

issues of access or reliability of access?
A. Yes.
Q. Do you recall him expressing any views to you about the greater convenience of the commercial concentrates and what he meant by that?
A. I think he probably did because it was -- the product was easier to use. It dissolved more quickly, it was provided in packs which had all the other necessary equipment in it -- you know, the cotton wool, the little plasters, I'm not sure -- they may have had the little butterfly needles that we used, but I just -- he obviously felt that it was a more convenient product to be used. And you obviously have his statement to the Penrose Inquiry regarding his opinion about risks and/or otherwise.
Q. Dr Hann was plainly able to make the switch to almost entirely, and then entirely, SNBTS product fairly early in 1983, given what we've seen from the figures that we looked at.

Do you know of any reason why Dr Willoughby couldn't have made that same switch earlier?
A. Well, I think, if I remember when that table was up, there was a reduction in the use of commercial concentrate in 1982 when Dr Willoughby was there. It was my impression at the time that Scotland was

achieving self-sufficiency at that time. I know there's been a lot of discussion about when did Scotland achieve self-sufficiency, and the opinion varied between those in blood transfusion and the clinicians, but it was my impression that Dr Willoughby was able to access increased supply of NHS concentrate from 1982 because there was a better supply from the PFC.
Q. Were you ever party to any discussion or dialogue that Dr Willoughby might have had with representatives of the Blood Transfusion Service or PFC?
A. I didn't have anything to do with procurement.
Q. In terms of the actual arrangements for the procurement of the commercial product, did you have any involvement with that?
A. No, it was through, again, Mr Jewell, the chief technician, and I wasn't actually aware of how it was paid for or anything but I see from Dr Willoughby's statement it was ordered through pharmacy.
Q. You have referred in your statement to there being visits from Armour and, indeed, other pharmaceutical companies. Were you ever part of any meetings that took place when pharmaceutical representatives of Armour or other companies visited?
A. What tended to happen is, from time to time, the

representative from Armour would come, I think, to speak to Mr Jewell and he would come through the day bed area and basically, you know, sort of say hello to the haemophilia sister and myself, and just check, you know, were we having any problems with the product or -- that would be the extent of my involvement with him.
Q. Other than the home treatment packs, and perhaps the Armour packs including the kind of bits and pieces of apparatus that might be required, was there anything else that was funded by Armour or any other pharmaceutical company in those early 1980s?
A. I mean, the representative might have given us a pen or two when they came in and they did fund some attendance at scientific meetings but there was no other facilities or things that were funded by them.
Q. In terms of DDAVP, we'll come on in a little while to precisely what categories of patients were treated and how, but the materials we've looked at, the report that was sent to the Penrose Inquiry, doesn't record DDAVP being used in the early 1980s. How confident are you that it was used prior to, I think, 1984, which is the first reference, although with no quantities actually being specified?
A. I think it was used before 1984. I cannot, you know,

with any -- I cannot really say for definite whether it was used earlier than Dr Hann's arrival. I would be surprised if I hadn't discussed it with Dr Willoughby because obviously I had experience of using it, but I couldn't, you know, say I definitely recall giving DDAVP -- in fact, you know trying to recall giving DDAVP to individual patients after that period is difficult to recall.

So I can't really say with any certainty but, as I say, because I had used it I would be surprised if I hadn't discussed it with Dr Willoughby or tried to use it.
Q. Now, the treatment policy, the decision as to what kind of treatments to use and to use commercial products and so on, those are matters, as I understand your evidence to Penrose and to this Inquiry, that were for Dr Willoughby. You did not have any involvement in those decisions?
A. No.
Q. That's correct: you didn't have involvement?
A. Didn't have -- I had no involvement, no.
Q. When it came to the treatment of an individual patient, so a patient who would turn up as and when, as you described it, how would the decision be taken as to how to treat that patient, would it depend upon

what was in stock at any particular time? Did you have an involvement in that kind of individual decision?

A. First of all, I think it would depend on what the patient had received in the past and it would depend on the age of the patient. I think we would probably try and use NHS concentrate when the patients attended hospital but that might not always have been possible, because we'd have to go over or phone over to the lab and get whatever was available and, obviously, the younger patients, and patients that may not have received treatment before, we'd try and treat with cryoprecipitate.

Q. The home treatment programme, which you have already alluded to, that was established by Dr Willoughby prior to you taking up your role as a clinical assistant?

A. That's correct, yes.

Q. Your written evidence to the Penrose Inquiry suggested that when you started you thought there were about six children on home treatment.

A. At least that number. It might have been slightly more but I can't give you an exact figure.

Q. Over the next two and a half years or so, again before the arrival of Dr Hann, did the numbers of patients on

home treatment increase?

A. Well, I think they must have. I was trying to remember being involved in training and, in fact, there was a witness statement to the Penrose Inquiry that did -- who said that I was involved in training in 1981. So I must have been involved in training more patients. I think the sister did most of the training and then I would kind of supervise towards the end to make sure that everything was satisfactory.

Q. Do you know how patients were selected for home treatment?

A. I think they were selected on the basis of, first of all, severity, frequency of bleeds, distance to the hospital. I mean, obviously part of the rationale for home therapy is that any bleeding episodes can be treated as soon as possible, and for patients who were living further away from the hospital that obviously would be an important factor.

So that was severity, frequency of bleeds, frequency of attendance at hospital; I think those would be the main considerations.

Q. What about age? Was there an expectation that when a patient with, say, severe haemophilia A got to a particular age they'd be eligible for home treatment?

A. Yes, particularly if they were frequent attenders, and I think Dr Winter said it was age three and I think it was Professor Ludlam said age four. Basically, I think, probably round about three would have been the age they would be considered, especially if they lived at some distance. The worry was that, you know, if they lived at some distance and there was an acute bleed and an ambulance would call, sometimes an ambulance would only take the child to the nearest hospital, which could be the local district general hospital. So it was probably felt more important that these patients who lived at a distance were able to treat themselves, or parents were able to treat their child immediately.

Q. Were all the patients who were receiving home treatment patients with haemophilia A or did you have haemophilia B patients on home treatment as well?

A. I think we had certainly one patient with haemophilia B that was on home treatment, at least.

Q. In terms of the products used for the treatment of haemophilia B, was it, as far as you can recall, generally the PFC Factor IX that was used?

A. Yes, it would be the PFC -- I don't think we used commercial concentrate at all. Well, I don't think we did at all.

Q. Now, as you already mentioned, the home treatment programme instituted at Yorkhill included prophylactic treatment.

A. Yes.

Q. Do you, again, recall any discussion with Dr Willoughby about why he took that approach, which may have been thought to be unusual for the time?

A. I think Dr Hann described it as ahead of his time. Yes, I did ask him about the rationale for prophylactic treatment and he said, well, you know, spontaneous haemarthrosis occur in patients who have -- who are severe haemophiliacs who have 1 or less per cent of Factor VIII and he felt that if -- I think he had looked at studies of prophylactic treatment, particularly in the United States, and he felt that if the boys were given regular Factor VIII, I think it was either twice or three times weekly, it might -- it would be able to maintain their Factor VIII levels, at a low level but at a level that might prevent spontaneous haemarthrosis, and one of his aims for introducing home therapy apart from being able to treat immediately, reduce hospital visits, et cetera, was to try and prevent the dreadful crippling haemophilia arthropathy that those who were involved in haemophilia before the '80s or even in the

'80s would be well aware of.

I think Professor Ludlam gave a very good description of, you know, the types of problems that this led to.

Q. The effect, of course, of a prophylactic home treatment programme would be that patients were receiving significantly more by way of concentrate than they would if they were simply being treated and as when required.

A. Absolutely.

Q. You've said in your statement that cryoprecipitate wasn't used for home treatment, wasn't regarded as practicable. Have you yourself ever had any direct experience of the use of cryoprecipitate for home treatment?

A. No. In fact, I haven't. And again, listening to the evidence that has been given by clinicians, I remember being quite surprised when I heard that it had, a way back in the early days, been used I think -- was it the Royal Free? Because it was -- I was always led to believe, and I think again from the evidence that you've heard, that it was generally felt that it wasn't suitable for home treatment for various reasons.

Q. What was cryoprecipitate used for then at Yorkhill?

We've seen the relatively modest amounts in terms of proportion that were used. When was it used?

A. Well, it was used for von Willebrand's patients or patients with von Willebrand's, and I think in small babies, where you didn't need to use such a large amount, it would be used, and younger children. When I say younger, you know, you're probably talking about maybe up to two years.

Q. Is it fair to say that it was the combination of home treatment and prophylaxis that accounted for the majority of the concentrate use at Yorkhill in the early 80s?

A. I think it accounted for the majority but I can't honestly say that patients who weren't on home treatment did not at some point receive commercial concentrate.

Q. Your oral evidence to the Penrose Inquiry discussed the length of time that could sometimes be taken for the SNBTS product to dissolve. What do you recall about that?

A. It just took a little longer. I mean, the commercial product dissolved really fairly quickly but the SNBTS you had to encourage it by gently -- well, I think I described in the Royal they had a roller system to help dissolve it but at Yorkhill we didn't so we just

gently had to swirl it around, as it were, to try and encourage it to dissolve. And I think that was recognised. Again, in chapter 1 of the final report of Penrose there is talk about the difficulty of the product dissolving, and I think it was Dr McClelland or Dr Watt saying that they were working on this.

Q. To what extent, as far as you're aware, was that a factor in Dr Willoughby's decision-making?

A. Well, it wasn't a factor that he gave me. I noticed that in his statement he did say that the commercial product was easier to use because it did dissolve more quickly.

Q. That's not something he discussed with you?

A. No.

Q. What, if any, discussions did you have --

SIR BRIAN LANGSTAFF: Just before you go on to the next question, what sort of time are we talking about, the difference of time to dissolve the PFC concentrate compared to the time it took to dissolve the Armour concentrate?

A. I think it was -- you're probably talking in terms of double the time, Sir Brian. Perhaps, you know, less than five minutes for the Armour and maybe, you know, five to ten minutes for the NHS concentrate.

But, you know, that's trying to dig into my

memory from many years ago. But it certainly was probably of that magnitude, maybe double the time.

SIR BRIAN LANGSTAFF: Thank you.

MS RICHARDS: Dr Pettigrew, just to remind you of your oral evidence to the Penrose Inquiry, you said it could take up to about half-an-hour to dissolve the SNBTS product.

A. No, I don't think so. I don't know why I said that, unless there was some bottles that were particularly stubborn.

Q. What, if any, discussions did you have or what views were expressed to you by Dr Willoughby on the question of the relative safety of commercial products and SNBTS products?

A. I don't think we ever had a discussion about that, and I don't think it was brought to my attention by him.

Q. What was your own understanding --

A. I don't think it was brought to my attention by him, sorry.

Q. What was your understanding, if any, in the early 1980s, your own understanding, of the relative safety of commercial versus SNBTS products?

A. I think I was probably aware that the commercial product carried more risk, certainly, of hepatitis B, because of -- I knew it was from paid donors but that

was really -- I wasn't aware of pool sizes and things at that time because I never worked in blood transfusion. And also the fact that we didn't use it at the Royal Infirmary. You know, I wondered if -- well, apart from cost, you know, I wondered if there was an increased risk from the commercial concentrate.

Q. You know now, I know, of the World in Action documentary from 1975. Did you, as far as you can recall, see that at the time or ever have any discussion about it or its implications?

A. No didn't see it at the time. I was a house officer living in a little room off the ward in the surgical unit at the Western Infirmary at the time without a -- and I didn't -- (a) on every other night, and no television -- no, I didn't see it. And I don't think I saw it until it was shown in the process of this inquiry.

Q. What was your understanding at the time of the relative safety of concentrates versus cryoprecipitate in terms of the risks of transmission of viruses?

A. I think it was -- my knowledge at that time probably would have been limited to hepatitis B, and that the risk of hepatitis B would be greater with concentrate rather than cryo.

Q. When you were involved with patients who were being

trained for home treatment, what, if any, information was given to patients about the risks and the benefits and disadvantages of home treatment with commercial concentrates?

A. Well, I think it's been well expressed elsewhere that one of the prime concerns would be to prevent and also to treat bleeding episodes. When patients were being -- when parents were being trained for home therapy, obviously they would be advised about the risk of hepatitis B because we would give them instructions and advice on preventing transmission of infection, you know, how to deal with blood spills. They were provided with gloves, aprons, what we called sin bins, to discard any material in, so that would be reinforced to them about the risk of hepatitis B and the prevention of the transmission of hepatitis B to family members. So they would be aware of hepatitis B.

As I say, I wasn't really aware of the risks of non-A, non-B hepatitis at that time, and I think it was -- the body of opinion among haemophilia clinicians at that time was that it wasn't a serious condition. But, you know, as I say, I did start checking LFTs at the time and, when I was checking them, I would say that we're checking these liver

tests because some patients with haemophilia have been found to have abnormal liver function tests on occasions and we're not sure, at that point, what's causing it and we're not sure if it is something, proteins or something, in the concentrate or whether it is -- if there is another cause.

Q. So in terms of information given to parents who were being trained for home treatment, you think the focus will have been on hepatitis B?

A. Yes.

Q. Any discussion that you might have had more broadly about hepatitis would be limited to mentioning to patients who were being reviewed that they had elevated LFTs?

A. I don't think we ever had anybody with grossly elevated LFTs, just mentioning that we monitored LFTs.

Q. As far as you can recall, were parents ever given a choice of treatment, as between commercial concentrate, NHS concentrate or cryoprecipitate?

A. I don't know if that would have been discussed with them by Dr Willoughby, but quite often, actually, in the early days, I think, the parents in home therapy preferred commercial concentrate because of what we've described but I couldn't say that they were given a choice, no.

Q. When you say you think they may have preferred commercial concentrate, that's because of the convenience factors?

A. Yes.

Q. For those not on home treatment then, can I just ask you about the approach to treating patients at the hospital. Your statement to the Penrose Inquiry suggested that very young children and mild haemophiliacs would be given or might be given cryoprecipitate; is that your recollection?

A. That's my recollection, yes.

Q. We discussed DDAVP. To the best of your recollection if DDAVP was used in the early 1980s, for what categories of patients would it have been used?

A. Well, I think if it was used it would be the patients who had mild haemophilia or patients with von Willebrand's who perhaps required something like a dental extraction or perhaps had a bleed that didn't require to be treated with concentrate; in other words, a bleed that wasn't felt to be a serious or potentially serious bleed.

Q. In terms of von Willebrand's patients, other than DDAVP, what treatment would they have received?

A. Probably cryo. I think -- I think we had one patient who had a severe form of von Willebrand's disease and

I'm not sure if she -- I cannot recall if she always received cryo or whether she had concentrate at some point. But I cannot honestly say whether all patients always had cryo.

Q. In relation to patients with moderate haemophilia, first of all, were there any patients with moderate haemophilia A who were on home treatment, to your recollection?

A. Well, I think there must have been because when you see the figures, those dreadful figures of patients who were found to be infected with HIV, I think there was two --

Q. Yes.

A. -- was moderate, am I right?

Q. Yes.

A. So there must have been patients with moderate haemophilia on home treatment. I think -- I can't remember patients with moderate haemophilia being started on home treatment when I was there, so they may have been commenced on home treatment before I came and transferred to the Royal before I came.

Q. In terms of a patient presenting at the hospital who had moderate haemophilia A and required treatment, who wasn't on a home treatment programme, what would the approach have been to their treatment in hospital?

anyone whoever they are, whether at home or anywhere else, about the evidence which you have given or, for that matter, about the evidence which you think you might be asked to give. You can talk about anything else you like.

A. Yes, thank you, Sir Brian.

SIR BRIAN LANGSTAFF: I look forward to seeing you at 5 to 12.

A. Thank you very much.

(11.30 am)

(A short break)

(11.57 am)

SIR BRIAN LANGSTAFF: Yes.

MS RICHARDS: Dr Pettigrew, in the first half of the 1980s, when a previously untreated patient presented to Yorkhill, what would the process have been for deciding how to treat them?

A. I think -- I can't really say with any certainty, to be honest. I would hope that an untreated patient might have been treated with concentrate -- sorry, with cryo, but it would depend on the presentation and the type of way that they presented with, and so -- and whether they were a patient who suffered from severe haemophilia or moderate or mild haemophilia. So, as I say, I can't really answer that with any

A. I think it would depend on what the nature of the bleeding episode was and whether it was felt that it was a bleeding episode, such as maybe a severe intramuscular bleed or a severe haemarthrosis that required to be treated with a level of Factor VIII that was known because there was a variability between the cryo and quickly. So I can't really say whether all patients with moderate haemophilia always received cryo or they always received concentrate.

Q. Was there any system of batch dedication prior to the end of 1984 or 1985 when there's some evidence of attempts to introduce it?

A. I certainly wasn't aware of any. In fact, I wasn't really aware of the concept of batch dedication again until watching the evidence that we've been listening to, that we've been given.

MS RICHARDS: Sir, I note the time. We started late but it is now half 11, so is this a convenient moment for a break?

SIR BRIAN LANGSTAFF: Let us take a break now until 5 to 12. Give you a chance to stretch your legs and have some refreshment.

During any break, you will have heard me say this before to other witnesses, I'm sure, you are giving evidence. What you must not do is talk to

certainty.

Q. Would the decision as to how to treat a previously untreated patient have been yours or another member of the clinical staff's or would that be reserved to one of the consultants?

A. Well, it would have been reserved for the consultant.

Q. So Dr Willoughby or then Dr Hann, after 1983?

A. Yes.

Q. We'll no doubt be hearing from Professor Hann tomorrow about his approach when he arrived in 1983. I want to ask you what you recollect about that. We know there was a switch to almost entirely SNBTS concentrate. Can you recall any discussions with Professor Hann about his reasoning in that regard?

A. I can't say I recall any particular discussions. I know that he was very keen to introduce a policy which he introduced for the use of cryo in untreated and new patients and children and to use NHS concentrate rather than commercial concentrate, and I presume he must have discussed that it was to try to reduce the risk of any infection because, obviously, by 1983 there was some discussion about the possible cause of Acquired Immune Deficiency Syndrome.

Q. But you can't recall any specific conversations now?

A. We must have had a conversation but I couldn't, you

know, give you specifics.
Q. Again, I think Professor Hann will tell us tomorrow about producing some written standard operating procedures or policies. Prior to his arrival, had there been any written policies or protocols as to how to treat patients?
A. With haemophilia, no.
Q. I just want to look at a couple of documents with you about heat-treated products prior to 1985.

Soumik, could we have AMRO0000137, please.

So we can see here, Dr Pettigrew, a letter from Armour dated 13 March 1984. It's addressed to the Medicines Division at the Department of Health and Social Security, and it says:

"Dear Sirs ...

Refers to a CTX number and then heat-treated Factor VIII.

"We wish to add the following additional investigators to our Clinical Trial Exemption 0231/0070A for Heat-treated Factorate."

And then your name and Dr Hann's name, and then we see Professor Hardisty at Great Ormond Street.

What, if anything, can you recall about your involvement with this process?
A. I really can't recall anything, when this document was

sent to me -- I couldn't recall the situation. I presume because it was 19 March '84 that Dr Hann might have felt that if we had an untreated patient that required concentrate that it might be better to use a heat-treated rather than an un-heat-treated product at that time. And I presume that this wouldn't have been licensed then and perhaps was part of a trial, but I don't really remember.
Q. Do you recall actually giving heat-treated Factorate to any patient at this time?
A. I don't recall giving it to anybody you know -- this product, no.
Q. When do you recall first using heat-treated products?
A. Well, I know that there was a small amount sent to Glasgow and Edinburgh by SNBTS in December of '84. I think they sent approximately a month's supply. Now, whether that included Yorkhill at the time, I don't know.

Then I think heat-treated Factorate was supplied in sort of regular amounts from January '85. And I think, as I had forgotten during the Penrose Inquiry but remembered when I was preparing my written evidence for this Inquiry, I went on maternity leave probably mid-to end of January so the beginning of May. So it might have been May 1985 before I had

experience of using heat-treated, or it may have been in January '85.
Q. Did you have any involvement that you can recall with any earlier use of SNBTS heat-treated products on a clinical trial basis?
A. Not that I recall, no.
Q. Now you've told us about your understanding of hepatitis risks as being essentially about hepatitis B.
A. *(Nodded)*
Q. When do you recall learning about non-A, non-B hepatitis?
A. Well, in the evidence I gave to Penrose I said it was probably toward mid-80s, but in fact, having been watching the clinical evidence and your presentation of evidence, I remember -- when Professor Preston's paper of 1985 was shown, I remembered that I had actually gone to a meeting -- I think I said in my Penrose statement that I learned of Professor Preston's work, but I went to a meeting in the Royal Free in, I think it must have been, 1984, before the publication of that paper, and the work of Professor Preston and I think also Professor ... was it -- I'm a bit mixed up with names -- was it Zimmerman or Zuckerman -- from the Royal Free also

presented work on liver biopsies in patients with haemophilia. And it was then that I became aware that non-A, non-B hepatitis, as I learned to call it then was, could possibly be -- cause severe liver damage in patients.
Q. So is this right, that you weren't actually aware of non-A, non-B hepatitis as a concept until around 1984?
A. I don't think so, no.
Q. Did you ever have any discussions with Dr Willoughby or did he ever give you any advice about risks of hepatitis?
A. Risk of hepatitis B and the fact that we, you know, regularly or whenever opportunity arose to check hepatitis B status in patients. But, other than that, there was never any discussion about what I subsequently know to be non-A, non-B hepatitis.
Q. You've mentioned the later Preston paper. Were you aware at the time of the earlier work that Professor Preston had undertaken in 1978?
A. No, I wasn't aware of that paper at all, no.
Q. We know that there was a paper published in 1980 specifically looking at the position of children published by Lilleyman and others. Was that something you were aware of?
A. No.

Q. What were the sources of information that you had in the first half of the 80s to keep up-to-date with scientific and medical developments?

A. Well, as was probably quite common in those days, it was sort of my position, not being a training post and not training for a specialty, a lot of information would come -- as somebody said, it would cascade down the hierarchy. So from my colleagues and, obviously, my seniors, and going to meetings, that would be the main source of information.

Q. What journals did you read regularly in the first half of the 80s?

A. Well, I have to confess I didn't actually -- I didn't subscribe to any journals. I didn't have ready access to journals because of my situation -- you know, to have access to a journal, I would need to go the library, but because of my situation I tended to go to Yorkhill in the morning and it was usually a question of rushing home late in the afternoon. So there wasn't really time to go and sit in the library and read journals. And I had let my subscription for the BMA lapse when I left the Royal Infirmary and I didn't resubscribe to the BMJ until probably later in, I think, 1988 when they introduced a special subscription for those that were earning less than

a certain amount a year.

Q. You may recall being asked about this by the chair at the Penrose Inquiry but is this right, that there wasn't at Yorkhill, in the early 80s at least, any kind of system for providing junior doctors such as yourself with updates about medical and clinical developments?

A. Probably not. There might have been a better system for those in training such as the leukaemia research fellow or the haematology registrars and SHOs.

Q. You referred in your statement to acquiring information from scientific meetings, and you have given an example of the meeting you attended in 1984 at the Royal Free. How often, again in the first half of the 80s, would you be attending similar meetings?

A. I couldn't really recall. I couldn't give you a figure for that. Well, not scientific meetings but we did have -- you know, in Yorkhill, obviously there was a weekly clinical meeting for everybody in the hospital. And in the morning meetings that we had as a team, a haematology team before the ward rounds, I think Dr Willoughby would have told us about any startling innovations or ... but there was never really very much about haemophilia discussed.

Q. Now, in terms of the information that was given to the

patients, we've touched on this to some extent already, before I ask you specifically about the provision of information about hepatitis, to what extent was advice or information provided to parents about lifestyle and how to manage lifestyle and activities to reduce the risk of serious bleeds?

A. Well, that was something that was discussed with them often and repeatedly. You know, we talked about the types of sport that they could and couldn't engage with and ways of trying to prevent bleeds without seriously restricting their normal lifestyle. So that was emphasised, really.

Q. Did parents ever ask you about the relative risks -- sorry, the relative safety of the treatments that they were using?

A. I don't recall in the early 80s, no, any parents asking about the relative risk of products.

Q. When do you first recall any such discussions taking place?

A. I think when the -- when the Acquired Immune Deficiency Syndrome was beginning to appear and, you know, questions were being asked about that.

Q. We'll come on to that in a few minutes more specifically. Did Dr Willoughby ever give you any advice or instruction or guidance as to the kind of

information to provide to patients about the risks of treatment?

A. Not that I can recall, but obviously Dr Willoughby made sure, and we all made sure, that the haemophilia patients were encouraged to join The Haemophilia Society and, you know, the leaflets were available in the treatment room in the day bed and then subsequently up in ward 7A.

Q. Given what you have told us about your own understanding about hepatitis risks up until a point in 1984, does it follow that you wouldn't have been telling patients or their parents about the risks of non-A, non-B hepatitis because you weren't aware of it particularly and you weren't aware of its potential seriousness?

A. Up until 1984, yes, that's correct.

Q. Once you did become aware, following your attendance at the meeting you described in 1984, did your practice change in terms of what you told patients?

A. Well, it changed in that when I was checking the liver function tests I would say, "I'm -- you know, I'll check liver function tests because, you know, we know that in some patients with haemophilia they can be abnormal and we also know now that in some of these patients they can progress to more severe liver

disease."

And I think I would have perhaps said, "And we don't know if this is due to a virus but we think it's not due to hepatitis A and it's not due to hepatitis B."

Q. So that's your best recollection of from some time in 1984 onwards?

A. That would be my recollection of what I would -- so I would give them an indication that there was a possibility that in some patients with haemophilia the abnormalities in liver function tests could progress to more serious liver disease and that it was possibly due to a virus which wasn't hepatitis A and wasn't hepatitis B.

Q. In your witness statement to this Inquiry -- Soumik, it's WITN3527002, please -- and if we go to page 9, please -- we just look at the first paragraph at the top of the page you say this:

"Where a child, who was normally treated with cryoprecipitate, received Factor concentrate as treatment for a bleeding episode requiring prompt control and higher levels of circulating Factor VIII, as previously described, the reason for this would be discussed with the parents. Moreover, when training for home therapy, the rationale for using Factor

Concentrate as opposed to cryoprecipitate would be explained."

Could you just tell us what you mean by that? What are the reasons or the rationale that would be given to patients in those circumstances?

A. I think there I would be talking about -- probably from the point of view of the nature of the bleeding episode and the requirement for treating that bleeding episode. I don't think there would have been a discussion there about different risks.

Q. Coming on then to your knowledge of AIDS and the possible association with blood products, can we look, first of all, at a statement you gave to the Penrose Inquiry. Soumik, it's PRSE0001126. If we look at the paragraph that's numbered (a), bottom half of the page, we can see that you say in the third line:

"During the period where there was increasing concern that a transmissible infectious agent was present in blood and blood products (1982/83) we would advise parents of this concern but at that time there was no definite proof."

So just ask you to note that. I am going to show you one other document again and then ask you a question about it. So you use there the terminology of definite proof. If we then look at PRSE0003995,

which is another statement you gave to the Penrose Inquiry, and if we go to the second page, please, Soumik, paragraph 10 which is halfway down the page, you say in paragraph 10 in the second line:

"As far as I can recall, I would have been first aware of the possibility of that AIDS was caused by an agent transmitted by blood and blood products in 1983."

I've shown you those in some respects as an aid to memory. What can you recall about learning about AIDS and the possibility that AIDS might infect haemophiliacs?

A. First of all, I think the first document you showed, when I said '82/83, I think in my oral statement to Penrose I corrected that to '83 and the first -- I remember first becoming aware in 1983 -- I think it was, the leukaemia research fellow advised me that he had read the paper in the New England medical journal, which had just related the AIDS occurring with patients with haemophilia in the United States and that was the first I was aware that it was occurring in patients with haemophilia.

Q. Does it follow from that that it's not something which, in the second half of 1982, Dr Willoughby had raised or discussed with you at all?

A. No.

Q. What, if anything, can you recall about how your knowledge and understanding in relation to AIDS developed in the course of 1983?

A. I think, you know -- well, obviously I kept up-to-date with -- there was a lot in the press about it and, at that time, Dr Hann had arrived and I think there would have been discussions with him about the progression of knowledge of AIDS and, as I say, at some point I did -- and, obviously, we would be going -- if there was any meetings that were appropriate we would be sent to them. As I said in my statement, I did try and obtain, and did manage to obtain, the MMWR. I'm not sure when that would have been but, you know, I felt that was one of the best ways of keeping up with the development of the knowledge of Acquired Immune Deficiency Syndrome.

Q. Can you remember the detail or content of any of your discussions with Dr Hann about AIDS in the course of 1983?

A. I can't remember any detail about discussions, no.

Q. Do you recall whether you became aware in the course of 1983 of the fact that a patient in Cardiff was understood to be suffering from AIDS, a haemophiliac patient?

A. I can't say with any certainty but it was probably -- it's likely that I would have been informed by Dr Hann.
Q. Do you have any recollection of learning about the death in August 1983 of a patient in Bristol from AIDS, a haemophiliac patient?
A. Again, at this point, I don't have any recollection but I would assume that Dr Hann, if he knew about it, would have informed me.
Q. To the best of your recollection, what information, if any, was provided to parents about AIDS and when?
A. Well, there wasn't any specific guidance or policy in place as to what to say to parents. I think, as Dr Hann mentioned in his evidence to Penrose, we operated a very open policy where we would try and be honest and open with parents and that open policy also operated from the point of view of the parents being free -- feeling free and able to call in and discuss, with particularly Sister Murphy and myself, anything that we were concerned about. So I think that over the period end of '83 and throughout '84 we would have had numerous discussions I'm sure with the majority of patients -- parents of patients with haemophilia who were on treatment, particularly home treatment, about AIDS and about our state of knowledge at the time.

There was also, again, information from The Haemophilia Society and lots of information in the press, et cetera.
Q. In terms of the information from The Haemophilia Society, did you yourself actually read what The Haemophilia Society was saying in their bulletins to see whether you thought it was appropriate?
A. Yes, I would read The Haemophilia Society bulletins, yes.
Q. Would The Haemophilia Society bulletins have been part of the information that contributed to your understanding of the risk of AIDS?
A. They were probably part of that, yes.
Q. If we look at your statement again, please, Dr Pettigrew, WITN3527002, and if we go to page 16, I'm going to show you a short passage from this and a short passage from your evidence to Lord Penrose and then ask you some questions, Dr Pettigrew.
So if we look at page 16, halfway down the page, a little further down, you say this:
"There was no policy as to inform parents about the risks of HIV which were not identified until 1983/84 and the knowledge about the risks of transmission of a causative agent and the natural history of the disease evolved slowly ..."

You contrast it with the introduction of the internet and the present crisis:
"Initial discussions with parents were of the state of knowledge at the time and as knowledge evolved, parents would be informed."
So that's what your written statement to this Inquiry says. If we go then to your oral evidence to the Penrose Inquiry, when you were asked about it in a little more detail, it's PRSE0006020. If we go please to page 45, Soumik. We pick it up in line 9. You say this:
"If parents -- it would usually be parents -- voiced concerns, we would say that, as I have stated, there was a possibility -- the possibility had been raised but at that time there was no definite evidence. There was still a lot of debate, even among the experts, as to whether or not there was a definite infectious agent and the advice at that time was that they should continue with therapy.
"But obviously, I would be following advice that I would be given by my seniors."
Then towards the bottom of the page, line 23, you say:
"The majority of parents would voice concerns because they were a well-informed group, and obviously

most of our parents were in contact with The Haemophilia Society and would be aware of this."
Just go on to the next page. Then if we go down to line 18, we can see you say:
"I can't recall any specific policy with regards to discussing with parents the risk of AIDS."
Line 22, you talk about how parents would call in usually just for a chat:
"... that would be the time when the concerns would be raised."
If we go to the next page please, Soumik, bottom half of the page, we pick it up at line 20. You have been asked about where such conversations might take place and you say:
"You know, you might be just talking to them wherever you were, and they would bring up this concern."
Dr Pettigrew, the impression that that evidence might be said to give is that there wasn't a proactive policy of informing patients about the risks of AIDS but if it was something that parents raised with you, you would then discuss it with them; is that fair?
A. I think that's fair but I would also say that over that period, as I said, the majority of parents would have brought up their concerns about it because it was

something that was very obviously in the forefront of their minds at that time. But there was no policy to write to parents and say, "Come in and discuss this problem that's been appearing in the press", but I would -- it's sort of -- I've been thinking about it, and my reflection would be that the majority of parents would have been -- and I have to say, when I say "parents", it was predominantly the mothers that we spoke to, and I think the majority of them would have a discussion with us. And, as I say, what we told them in that discussion would have depended on the knowledge at the time, and that evolved over that period.

Q. If what you were telling them depended on your evolving knowledge, would you be telling them essentially the same message as you were picking up from The Haemophilia Society, using words such "no definite proof" or "no conclusive evidence"?

A. I think when I use "no definite proof" there, I think I'm referring to the fact that the virus hadn't been isolated until into -- well, I suppose Montagnier was perhaps '83, and Gallo was '84. But I would have followed any knowledge that I'd acquired through discussions with Dr Hann, and he obviously would have the minutes from the UKHCDO amongst other sources.

Q. Is this right you can't remember what actually you said to parents and what you said may have changed over time as your understanding changed?

A. I think that's correct, yes.

Q. Do you accept that as a matter of principle, the parents of the boys at Yorkhill had a right to know that factor concentrates might infect their children with a fatal disease for which there was no treatment?

A. I think when that became -- when it was apparent that that was the case, it would have been better if they had been informed and perhaps if there had been a policy not only in our unit but in all units to inform parents and patients of this.

And, as I say, it was -- I think we've heard before, it was a difficult time. It was a time of confusion, it was a time of evolving evidence, and, you know, it's -- we can look back and say, yes, you know we should have done it better, but at the time there was a lot of -- there still was a bit of confusion and -- but we could have done it better, yes.

Q. Do you recall a time coming at which you and/or Dr Hann actually did spell out to parents that this was a likely or potential risk of the factor treatment, that their child could develop a fatal

disease for which there was no treatment?

A. Well, I think part of that would be when we were changing to NHS concentrate, because we would explain to the parents, as I say -- you know, up until probably the question of AIDS arose, the parents quite liked using the commercial concentrate, so we would have to explain to them that we were changing to the NHS concentrate because it was felt that that carried less of a risk of transmitting AIDS -- at that time it was thought anyway. So that would be part of the discussion as well.

Q. Do you recall ever discussing with/telling a parent about the Cardiff case or the Bristol case?

A. I can't recall telling any parent about those cases, and I don't know if such -- it would have come up in discussion if perhaps they had seen it in the press. I don't know. But I can't recall.

Q. The policy at Yorkhill, as I understand it, was to continue using concentrates, albeit the concentrates would be SNBTS rather than commercial concentrates. Were you therefore offering reassurance to parents that the treatment was safe?

A. No, I think we were saying to parents that it is thought that the SNBTS-produced concentrate added less of a risk -- at that time there was no cases reported

in Scotland, and it was thought carried less of a risk of transmitting the putative agent for Acquired Immune Deficiency Syndrome at that time.

Q. Would any of the discussions that you are referring to about risks of AIDS have been documented in the patients' records?

A. Well, again, reflecting on that, I don't think so because these discussions would be unscheduled visits by the parent, usually, to the treatment room. The case notes were held centrally in the records office and they were only brought to the treatment room when a patient came. So we wouldn't have had the notes. And again, perhaps, we should have gone and got the notes and recorded these discussions in the notes, but at the time that wasn't the practice.

Q. Was any parent in '83 or '84, specifically because of the risk of AIDS, offered the choice to return to treatment with cryoprecipitate?

A. As far as I recall, I think there was certainly one or perhaps two parents that asked about using cryoprecipitate and those two parents -- those two patients did use cryoprecipitate but, as far as I recall, it then became hospital-based rather than home treatment-based treatment.

Q. What, if any, steps were taken at Yorkhill, first of

all under Dr Willoughby, to reduce or minimise the risk of patients becoming infected with a virus?

A. Well, I think Dr Willoughby, as he said in his statement, was unaware of the risk of AIDS at his time at Yorkhill. Dr Hann, as we've discussed, introduced a policy of using SNBTS Factor VIII rather than commercial Factor VIII because it was thought to carry less of a risk of transmitting the Acquired Immune Deficiency Virus, or the putative agent, at that time and he also introduced a policy, a written policy, of using cryoprecipitate in newly diagnosed, previously untreated patients and in the younger children not on home therapy, and, obviously, my older patients who had mild or moderate haemophilia and in von Willebrand's disease.

Q. Just if we leave aside --

A. Sorry, can I just also say, Dr Hann wasn't -- at that time didn't support prophylactic treatment, and I think over that period prophylactic treatment was to a greater or lesser extent reduced.

Q. Just sticking, if we may, for a moment to the time before Dr Hann's arrival, so whilst Dr Willoughby was still the consultant in charge of the service, and leaving aside what he did or didn't know about AIDS, what, if any, steps were taken or how were the risks

of infection with hepatitis reflected in the treatment policies at Yorkhill under Dr Willoughby?

A. Well, again, reading Dr Hann's statement and his record of what Dr Willoughby had said to him, Dr Willoughby's opinion was that the question of transmission of hepatitis through commercial products had been partly addressed by improved donor selection and screening. So I would have to say I don't think there was any steps taken -- sorry, could you just repeat the original question?

Q. Yes, of course. It was a slightly convoluted question.

Under Dr Willoughby, what, if any, steps were taken to reduce or minimise the risk of patients being infected with a virus, whatever that virus might be?

A. Well, as I've just said, you know, his opinion about the reduced risk of or the evolving reduced risk of hepatitis, so there wouldn't have been any particular steps taken I don't think.

Q. In relation to the time from 1983 onwards under Dr Hann you have referred to the change to SNBTS product and to a reduction in prophylaxis. Was any consideration given, as far as you can recall, to stopping home treatment?

A. No.

Q. Was any consideration given to a significantly increased use of cryoprecipitate?

A. For home treatment?

Q. Either for home treatment or in hospital.

A. I think the use of cryoprecipitate was as outlined in the policy that Dr Hann instituted at the time.

Q. So in terms of home treatment, was there any consideration as far as you can recall, given to using cryoprecipitate for home treatment?

A. Not on a general basis, no. As I say, there was two patients or two situations where cryo was used, but it wasn't given as home treatment.

Q. Can I come on then to ask you about the circumstances in which it was learnt at Yorkhill that a significant number of the children had been infected with HTLV-III. Your evidence to the Penrose Inquiry was that testing was carried out by a Dr Follett of the regional virology lab on stored serum samples; is that right?

A. That's correct.

Q. Now just dealing with the question of the samples first of all, do I correctly understand your evidence to Penrose to have been that you weren't aware that samples were being stored?

A. That's correct but, again, listening to evidence given

by clinicians, I wasn't aware that it seemed to have been accepted practice in virology departments at that time.

Q. Did you or the sister or Dr Willoughby ever arrange for samples to be stored of patients' sera?

A. Neither Sister Murphy or I or Sister Wright would have arranged for samples to be stored. I do not know if samples were stored in the haematology lab but I don't think so. I wasn't aware of any.

Q. If you and the haemophilia sisters were not aware of samples being stored, whether in the haematology lab or in virology, would it follow logically that the patients or their parents are unlikely to have been aware that that was the practice?

A. I think they are unlikely to have been aware that that was the practice, yes.

Q. As far as you understand, the testing that was undertaken by Dr Follett was testing in which the parents were unaware at the time?

A. Yes. And, as far as I recall, certainly I was unaware of it and I think Dr Hann was unaware of it.

Q. Do you know anything about what led Dr Follett to undertake this testing?

A. No, I don't.

Q. How did you learn the results of the tests?

A. As I said in my statement, I remember Dr Hann called me over to his office and showed me the letter from Dr Follett, with the names of the children who had been infected with HTLV-III, as it was known then. These were children that had been treated at Yorkhill not all of them were still at Yorkhill, and I know that Dr Hann in his evidence didn't have a clear memory of that but I did because, as I say, you know, we were very worried that some of our patients would be infected, and it was there written in black and white that they were -- it was an awful moment, yes.

Q. You told us, Dr Pettigrew, you went on maternity leave, I think, in early 1985 --

A. Yes, I did.

Q. -- and came back in May. Does that help you with helping us about when this testing might have taken place?

A. Yes. I haven't remembered -- I say I tend to keep my professional and personal life at that time separate, and I had forgotten when I was giving evidence at the Penrose Inquiry that I had -- well, in fact it was when I saw the letter that you sent with the documents that I'd written to Dr Taylor about the patient that transferred and I looked -- the patient had transferred to Inverness that was found to be HTLV-III

positive and I noticed the date on that, 17 May 1985, and I thought, well, wait a minute, 1985 my son was born in February '85, so I must have been on maternity leave up until the beginning of May, and so I presume that letter came in just after I came back from maternity leave.

Q. We'll just have a look at the letter, if we may. It is GMCO0001690_055. So we can see it is a letter from you, 17 May 1985, to the Regional Blood Transfusion Centre in Inverness about a patient -- I am not going ask you anything about the individual patient -- but a patient who had been treated at Yorkhill with mainly commercial factor concentrates and presumably was now being treated elsewhere. It says:

"Dr Follett of Ruchill has recently looked at samples stored from haemophiliacs over the years (these samples had been sent for [Hepatitis B] analysis) and found that several of our patients were HTLV-III AB positive. I am afraid that [X] is one of these patients and I thought that you ought to be informed so that you can arrange for appropriate measures to be taken."

First of all, in terms of timing, the fact that you were sending this letter in May and it refers to Dr Follett having recently looked at samples, does

that suggest that the process of testing was taking place perhaps in the spring of 1985, rather than earlier, in perhaps 1984, when you went off on maternity leave?

A. That certainly is a suggestion but I think you've probably seen work that was done later by Dr Chalmers to try and look back and see when patients were infected. Looking at those results, of first positive and last negative, Dr Follett might have been testing them in '84, late '84.

Q. This would suggest that the testing undertaken by Dr Follett was not limited to the tests of patients who were still being treated at Yorkhill. Dr Follett was, for whatever reason, looking more widely at patients who had previously been treated at Yorkhill?

A. Well, I presume -- I presume -- that he had specimens that were sent from Yorkhill, stored separate from specimens that were sent from the Royal -- I presume, though he presumably -- and I'm sorry there's a lot of presumptions here -- that I presume that he was testing those stored specimens that had been received, sent to him, from Yorkhill.

Q. What can you recall about the arrangements that were made to tell the parents of these children that their boys were infected with HTLV-III?

A. Well, when I was in Dr Hann's office and he showed me the letter -- is it possible to take that one off? Thanks. He was of the opinion that we should inform the parents as soon as possible about these results and it was decided that if I saw any of the parents in the daybed area, that I should inform them and, otherwise, we would arrange to bring the parents to the next routine haemophilia clinic, which would have been within four weeks of receiving that letter.

I don't think there was a detailed discussion about what to tell them, except that the test indicated that their child had been infected with the HTLV-III virus and that we didn't know at that time how many patients infected with the virus would then go on to develop the condition of Acquired Immune Deficiency Syndrome.

It was also the fact that the test at that time was thought not to be absolutely reliable and that we would probably have to undertake confirmatory testing and that we would follow up the boys very carefully in the future.

Q. Was the task of telling the parents effectively delegated to you to undertake?

A. Only those parents who I had the opportunity to speak to before Dr Hann and I gave the results to the

parents at the next routine haemophilia clinic.
Q. Bearing in mind what you told us about the dates when you were off on maternity leave, Dr Pettigrew, does it follow that the process of telling parents the results is probably a process that began in May 1985?
A. Yes. I think it would begin -- as I say, I think I probably sent that letter fairly promptly after we'd received the results. So the process of telling the parents would have begun, you know, well straight after receiving that letter, yes, or my seeing that letter.
Q. The letter that we looked at, and again I'm not asking you about the individual patient, but the that letter we looked at is you telling another clinician --
A. The result.
Q. -- the result. Would the parent, by that stage, have been told or was the purpose of sending the letter so that the local clinician would provide the diagnosis to the parent?
A. The local clinician would be the clinician responsible for looking after that boy. We didn't have any -- I don't think it would have been normal practice at that time for us to write directly to the parents. It would be the responsibility of the clinician who was caring for the child at the time to -- and that's why

I left it in terms "appropriate action", because obviously I couldn't dictate to a consultant what action he should take, but I assume that he would appreciate the steps that would have to be taken and, as I say, we didn't have an address and I don't think we would have written to the parents. I think we would have done it through that process of informing the consultant in charge of the patient's care --
Q. So patients --
A. -- at the time. Sorry.
Q. So patients who were being treated at other hospitals now you would notify the treating clinician. In relation to any patients of yours who had by that time transferred to the care of the Royal Infirmary in Glasgow, was it the same arrangement, that the results would be notified to Dr Forbes or Dr Lowe or who whoever it might have been?
A. I presume they probably had tested those patients anyway. We did inform them of the results, yes.
Q. So the parents who you were telling were the parents of the children who were still being treated at Yorkhill?
A. And I think the number was 10 or 11.
Q. Just look at the Penrose Report, in terms of the overall numbers. PRSE0007002, please, Soumik. Could

we go to page 98 using the internal pagination, Soumik, so I think it might be something like page 109.

Under the heading "Royal Hospital for Sick Children Yorkhill", paragraph 3.284, it says:

"Dr Elizabeth Chalmers, Director of the Haemophilia Centre at the Royal Hospital for Sick Children, Yorkhill, Glasgow, provided evidence that 21 children were infected with HIV as a result of their treatment at the Royal Hospital for Sick Children. All 21 children had Haemophilia A (19 had severe haemophilia and two had moderate haemophilia)."

Then in the next paragraph it goes on to say that all the children received both SNBTS and commercial product, in particular Factorate:

"For 12 of the 21 children, the date of the last negative and first positive HIV tests are known. Two of the 12 children seroconverted between January 1980 and January 1981, one child seroconverted in 1981, three children seroconverted in 1981-82, four children seroconverted in 1982-83, one child seroconverted between 1981-1983 and one child seroconverted between 1982-84. For nine of the 21, the date of the last negative test for HIV is not known."

If we go to the next page, please, Soumik, we can see a table, table 3.18 which sets out the 21 children referred to here as Y1 through to Y21, dates of the last negative sample, first positive, and so on.

Your recollection of there being, perhaps, around ten or so children does that reflect that was the number of children, as far as you can recall, that you had to tell because they were still being treated at Yorkhill at the time?
A. Yes, that's correct. There's something about that table that I'm not quite understanding. If you look at Y7, Y7 first positive was 15/5/85. I'm not sure if that -- well, I presume that must have been in the letter that we got from Dr Follett but it's quite late in the scheme of things. So I'm just pointing that out that I'm not sure about what the situation is there.
Q. Okay, thank you.
SIR BRIAN LANGSTAFF: There's another one, Y1.
A. That's April.
SIR BRIAN LANGSTAFF: Yes. So one's April, one's May. They are both late, if you think about it that way.
A. Well, yes but for a first positive to be discovered in 15/5/85, and there's one ... there's other ones in

January '85, first positives. It was just something, when I looked at that, it puzzled me a wee bit.

SIR BRIAN LANGSTAFF: It might suggest that the testing -- if all 21 were tested at the same time, the samples were tested at the same time, testing must have taken place after 15 May 1985.

A. Up until 15 May 1985, yes.

SIR BRIAN LANGSTAFF: The testing must have been after, because the first positive test is that date, and this is looking back on samples.

A. Yes, but that --

SIR BRIAN LANGSTAFF: So they would have been on the 15th or earlier.

A. Yes, that would have been tested on 15 May 1985.

SIR BRIAN LANGSTAFF: So I think not tested on that date but a sample taken on that date, surely?

A. Yes, but that -- that date was --

SIR BRIAN LANGSTAFF: Let me tell you, I may be wrong, but the way that I'm looking at it at the moment is that the -- this is somebody who's got a vial in front of him containing a sample, the sample is dated, because it's the date the sample was taken. A number of different samples will have been taken over time from each patient, and so each patient may have, let's say, ten samples. He checks to see which -- if the latest

sample shows that they are positive. If they are negative there's not a problem. If he does discover that that is positive, he needs to go back to see whether earlier samples also show positivity. So he works his way back through, in the hypothesis I've taken ten samples, to see the previous samples and eventually comes to the earliest in which he has a negative.

A. Yes.

SIR BRIAN LANGSTAFF: That's the process which I imagine in my mind was going on but I may be wrong about that. Does that coincide with your concept?

A. I think that is what happened.

SIR BRIAN LANGSTAFF: So it must then follow that all of the 21, our 21 who tested positive at some time, they must all have been first positive before the date of the testing done by Dr Follett, and that would suggest to me at the moment, from this table, that the testing probably took place at the earliest on 15 May 1985. It can't have been earlier than that because otherwise why would you get these later first positives coming in? By definition, everyone on the list has been positive on a test sometime in '84/'85 -- '85 it must be -- and then you look back and see when first.

Isn't that how it would work?

A. Yes, I think you're quite right, Sir Brian. I just -- that first positive on 15 May 1985 is relatively late.

SIR BRIAN LANGSTAFF: It is, yes.

A. Sorry, it was just something I noticed.

MS RICHARDS: Could we look at PRSE0002066, which is the note of a meeting of haemophilia directors and SNBTS representatives on 29 November 1984.

So you will see the date at the top of the page, Dr Pettigrew, and we can see that Dr Gibson attended. Is it fair to assume that Dr Gibson was the representative of the Royal Hospital for Sick Children at this meeting?

A. She would be.

Q. If we look at the bottom the page, paragraph 5, we can see it's being said:

"Dr Gibson reported the anxiety felt by parents of haemophiliac children treated at RHSC Glasgow, where imported Factor VIII had been used until relatively recently. Five out of 10 of these patients were HTLV-III antibody positive."

Now this would tend to suggest that by the end of November 1984, ten patients had been tested and five found to be HTLV-III positive. This is before the period where you went off on maternity leave.

Can you recall anything about that or the

arrangements that were made at that earlier stage for testing?

A. No. I was also asked about this in the course of the Penrose Inquiry and I don't recall anything about that and I don't know where those figures came from.

Q. So is this right: your first recollection of learning that some of the children you had been treating were HTLV-III positive was later on in 1985, as you have already discussed, in May of 1985?

A. Yes, it would be.

Q. As I understand it, in terms of the arrangements for telling the parents, you have described it as being either, if they came in opportunistically, i.e. without a scheduled regular appointment, the opportunity would be taken to tell them, or as and when they came in for their next routine appointment in the clinic that by this time had been established by Dr Hann.

Does it follow that they would have had no advanced notice or preparation for the news that was going to be broken to them because they didn't even know their child had been tested?

A. I think that's fair. I think there was a high index of suspicion amongst them that their child would be at risk of being infected but certainly they wouldn't

have known that they were going to be told.

Can I also just make the point, I think one thing that we could have done better too is that it was generally, again, the mothers that were at -- on their own, and it would have been -- you know, with hindsight, it might have been better to sit down and work out a framework kind of policy for how we were going to do this, and include both parents, because it's not the sort of information that you want to give to a mother on her own without somebody.

Q. Again, does it follow from what you have just said that express consideration wasn't given at the time to, for example, the option of arranging visits to the home where, in their own familiar environment, both parents could be given the news?

A. Well, it wasn't, and that probably would have been something that we should have perhaps thought about at the time, because we were used to doing home visits anyway.

Q. Do you know how long the process of telling parents this awful information took?

A. Well, as I say, it could take maybe up to half-an-hour. You know, it wasn't something that was rushed. It was ...

I tried to spend -- certainly the ones I told

on my own and the ones we saw at the clinic, we tried to spend as much time as was needed with them, with the parent. And then Sister Murphy and I would again reinforce what we had discussed when we saw them back at the day bed area.

Q. Prior to the process, which you think you undertook in or after May 1985, do you know whether any parents had been told earlier than that of the test results?

A. I don't think so, no.

Q. You said, I think, you think waiting for them to come in at the next appointment would only perhaps have been a matter of three to four weeks.

A. Yes. Sorry, the clinics were -- at that time they were monthly. We increased the frequency after that. So you know it wouldn't have been more -- it would have been less than four weeks, perhaps two weeks, three weeks.

Q. So did every patient on home treatment get seen monthly by 1985?

A. No, but they would all -- all the patients, and perhaps those not on home treatment, would be seen at least six-monthly or yearly at the clinic. But after we got the results, we saw the patients who we knew were antibody positive on a more regular basis, perhaps monthly or two-monthly.

Q. I understand that, once you'd told the parents the result, you're seeing them more frequently. I'm just trying to sense how it would be if you are a child who is seen, say, six-monthly, we're in May of 1985 and your next appointment is not for another three, four, five months, does that mean unless the parent and child came in opportunistically, prior to that they wouldn't be told the result until the next scheduled appointment, which might be three, four, five months' time?

A. No. For that first clinic after we got the results we sent out appointments to those that hadn't been given the results prior to the clinic.

Q. So you brought what might have been the regular scheduled appointment forward?

A. Yes. I don't know if the parents would have thought it was because the clinics hadn't been -- well, they were established in '83, so there may not have been a pattern recognisable as to how frequently they were being seen, if you see what I mean.

Q. You told, I think, the Penrose Inquiry that you don't think the results were initially entered as part of the patient records because of the stigma associated with AIDS; is that right?

A. That's correct. We were very worried about

confidentiality and I think, as I said in my Penrose statement and oral evidence, there was a lot of hysteria, even amongst people working in the hospital (and I think that has been mentioned by other clinicians giving evidence), and we were very worried that this information would be distributed outwith the hospital.

MS RICHARDS: I note the time. Is this a useful moment to break?

SIR BRIAN LANGSTAFF: Yes, it is, but I do just want to ask something, if I may, just before we take a break.

At the time that these conversations happened, you were the mother yourself of at least two small children and, the way that you're telling us about it, plainly, a distressing experience. Do you want to say anything more about that before we take a break? And then it would be appropriate to take a break.

A. Yes, Sir Brian, you are perfectly correct. It was a very, very distressing experience, because we knew these mothers, we knew these children, we had watched them growing up, and it was a very distressing experience to have to explain to the parents that this had happened to their child. It was an awful time. A far worse time for those parents, but it was an awful time for all of us that were involved in their

care as well at the time.

SIR BRIAN LANGSTAFF: And you have thought about it, I suspect, a lot since.

A. Absolutely. I knew that some of these children had died and it was just an awful, awful, awful tragedy.

SIR BRIAN LANGSTAFF: We will take a break there, I think, and take a break until 2.05.

(1.04 pm)

(Luncheon Adjournment)

(2.04 pm)

MS RICHARDS: Dr Pettigrew, you were telling us before lunch about the process of telling parents, in particular mothers, about their child's diagnosis. What, if any, arrangements were made by Yorkhill for the children themselves, subject, obviously, to their age, to be told of their diagnosis?

A. Ms Richards, do you mind before I answer that if I could add something that I haven't given in my earlier responses, and I apologise.

The first thing was, when you asked about what steps were taken to reduce the risk after 1983, when Dr Hann came, I omitted to mention obviously the use of DDAVP in situations where it was appropriate, and probably less important but I think I should mention other lifestyle advice was things like no

intra-muscular injection, no aspirin, regular dental care, to ensure that the muscles around the joints were kept in good condition by appropriate exercise. So I do apologise.

You were asking about arrangements to tell the children?

Q. Yes.

A. Well, the sort of practice in those days was that the parents would be told first. I think I mentioned in my Penrose statement, and possibly this was before the 1985 or 1988 Children (Scotland) Act and the 1991 Children's Capacity Act, and the parents were then asked whether they would like to tell the children or if they would like us to tell the children, either with them present or not.

We recommended particularly that the older children be told, because obviously some of them would be approaching puberty and then there would be other issues that were important to discuss, like sexual transmission. So that was the basic -- the policy at the time.

Q. And --

A. (Inaudible) -- sorry, for, you know, children who were being treated for other haematological diseases such as leukaemia.

Q. Were there children who -- child patients who you told their diagnosis to or did parents tend to do it themselves?

A. I think parents tended to do it themselves. And I cannot say with any absolute certainty that I didn't tell some of the children but I think on the whole parents tended to tell the child themselves and choose when they told the child or when the child was told.

Q. I think you are aware that when Dr Mark Winter gave evidence on the issue of whether to tell children their diagnosis, he referred to having had some form of dialogue with a group of Scottish clinicians who didn't favour the child being told their diagnosis. Do you have any knowledge of that?

A. No, but I heard Dr Winter's evidence and I checked Dr Hann's evidence, and I think the meeting was quoted as a UKHCDO meeting in 1984. Dr Hann was not at that meeting and I think he was asked in his oral evidence to Penrose about policy, and I don't think -- I'm pretty confident it wasn't our Scottish group that was at that meeting.

Q. If we could have up on screen, WITN3527003, please Soumik.

This is a letter from the GMC. I'm not asking you anything about the details of the issue being

considered in terms of the individual patient or the process. There's just one thing I wanted to ask you about, Dr Pettigrew. It's in the last paragraph on this page where it said by reference to an HTLV-III result:

"The result was found as part of a research project and Dr Pettigrew was passing on information in order that a clinician could 'arrange for appropriate measures to be taken'."

Can you assist us thereus there with the reference to it being a "research project" which revealed the HTLV-III results?

A. I have to admit I hadn't -- I think I was just so relieved when I got that letter, after the case took two years to resolve at the time, I didn't really notice or take full cognisance of that phrase there. And I was reading it obviously in preparation for today and I thought that's not correct. It wasn't a research project. I think they must have misunderstood.

There was certainly nothing in the letter that was sent on my behalf by the MDDUS, there was no reference to a research project.

Q. Can I just ask you a little about the benefits of the social work input that Yorkhill had at this time.

Social worker Christina Leitch had joined Yorkhill I think in the autumn of 1984. To what extent was her involvement an important aspect of the support for parents and children?

A. I think Mrs Leitch's involvement was pivotal. I mean, it was very, very important. Because she was somebody that was not directly -- well, she was part of the haemophilia team, although she wasn't a haemophilia social worker, but she was outwith the clinical area of treating patients with haemophilia, and I think her input was very important because certainly the parents could discuss issues with her which they may not have liked to discuss with us. They could express their emotions there -- their anger, their concerns, their own difficulties -- with her that they may not have expressed with us. And I think it was very important.

And I noticed in her statement to the Penrose Inquiry, she said that the medical staff were reluctant for her to set up parent support groups and that certainly wasn't my opinion. I was very grateful that she was able to do that.

Q. In terms of the arrangements that were made for the treatment of children infected with HIV, your statement explains that they would be referred to the infectious disease unit, and I may pronounce this

wrong, Ruchill hospital?

A. Ruchill Hospital.

Q. For continued monitoring. What were the arrangements as between Yorkhill and the infectious diseases unit?

A. Well, as far as the care of patients with haemophilia who were HTLV-III positive, there was a very close liaison between the two units. And also Ruchill did have paediatric patients -- I think I've said that in my statement -- you know, children were admitted to Ruchill with infectious diseases. But we liaised closely with the infectious disease specialist at Ruchill because they had experience of treating patients with AIDS, even at that time, because there was a number of members of the gay community, and also at that time in Glasgow there was quite a problem with people who inject drugs. So they had, relatively, a lot of -- well, certainly more experience, and relatively a lot of experience, of treating patients with AIDS. So we liaised with them and we cared probably on a sort of joint basis for the patients.

Q. What was the division of responsibility between Yorkhill and Ruchill?

A. Ruchill would give advice on any treatment for AIDS. Initially at Yorkhill we would monitor the boys for any symptoms of any AIDS-related disorder. I think we

also took the blood for them, on the advice of Ruchill, for the CD4:CD8 lymphocyte ratios, and would inform probably I think it was Dr Kennedy at the time of those results and we would take their advice on any action that needed to be taken.

Q. At what point in the development of the boys' condition would they actually be attending the infectious diseases unit and receiving treatment there?

A. I'm not sure -- I know that they did attend infectious disease unit at the clinic there but I couldn't tell you exactly when in their condition. I know certainly by the time that any of the boys were commenced on any form of treatment they had been attending a clinic at Ruchill.

Q. Do you know what, if any, efforts were made to minimise the potentially very negative effects of children with HIV having to attend Ruchill for treatment and be exposed there to very ill patients and IV drug users and so on?

A. Well, I think we tried to monitor and look after them as far as we could in Yorkhill, and I can't really speak for what measures would be taken in Ruchill to try to minimise their contact with not only very ill patients but also some perhaps difficult patients,

considering the group involved who were people who were injecting drugs.

Q. Do you know whether any representations, for example, were made by Yorkhill to Ruchill to see whether there could be some kind of separate arrangements or separate clinics or attendances for the Yorkhill children?

A. I don't know of any such arrangements but, as I said, I know that Ruchill were used to dealing with children who were admitted there with infectious diseases.

Q. You've referred in your statement to the stigma associated with HIV at this time, including from hospital staff themselves. Could you perhaps elaborate upon that, please.

A. Well, I think the thing that springs to mind there is an announcement by -- before any of our patients were found to be positive with the virus, an announcement by the porters that under no circumstances would they either transport in a wheelchair or a trolley patients who were known to have the AIDS virus in the -- they wouldn't transport them in the hospital, whether that would be for X-ray or whatever, and on no account would they transport any deceased patient.

Also you're aware that -- from witness statements of the way that patients were -- our boys

were treated when they were admitted. And that obviously made them feel quite stigmatised too. It must have been very difficult.

Q. Your statement to this Inquiry refers to GPs initially not being told of the diagnosis of HTLV-III/HIV because of the surrounding stigma and hysteria about AIDS; is that correct?

A. That's correct. And I think we did eventually write to GPs but we put on the envelope, "To be opened -- "Highly confidential - To be opened only by the general practitioner to which this is addressed". And I think most general practitioners would have taken steps to keep that letter in a secure place.

Q. Was that done only with the agreement of parents or were GPs notified in the absence of parental agreement?

A. I can't be absolutely sure. I would think we would have informed the parents that we were writing to the GP but, as I said in my statement, you know, when I was in general practice it was accepted that patients who were known to have HIV that the GP may not -- didn't have to be informed, but obviously the patient took that decision themselves and not the clinician.

Q. In her statement to the Penrose Inquiry, the social

worker, Christina, gave evidence referring to a concern expressed by a colleague of hers that children with bleeding disorders were generally treated like second class citizens as inpatients. We can look at it if you need your memory prompted in relation to that.

A. (inaudible) reading that. I remember reading that and my thoughts at the time were, well, perhaps to a certain extent that was true probably from the point of view of -- well, first of all, could I say that the sister who ran the ward would not have tolerated any distinction between the patients. But in the ward VIIa, and it would have been ward VIIa at that time, which was the haematology ward, there was a lot of -- the parents of children who were being treated for leukaemia were there, living in the ward, for approximately four to six weeks during the very intensive induction phase of treatment for leukaemia. They would get to know each other well and they would form a little group, and I think they would probably not have included any parents of children with haemophilia in that group. And as I think Christine Leitch said, that, you know, they tended to see these children as being relatively healthy if they were in for a bleed, with a bleeding episode.

So I think to certain extents that would be true, but I would have to say that the nursing staff I think would do their best not to make any distinction between because they were all sick children and should be treated equally.

Q. What advice, as far as you can recall, was given to parents, family members, about the infection risks?

A. Well, I remember at the time, probably from MMWR, but there was only one incident where a carer had been infected from a patient who had AIDS, and that carer had a lot of exposure to bodily fluids and had, I think, possibly eczema or something where there was open areas in the skin but, apart from that, there was no evidence of any spread to household contacts.

However, we did reinforce the advice that we'd already given about preventing transmission of viruses such as hepatitis B, and particularly when home treatment was being performed. So we reiterated that advice strongly and things like not sharing toothbrushes, not sharing towels, et cetera.

Q. Dr Pettigrew, before I turn to the handful of further topics I want to cover with you, there are some further questions or requests for clarification arising out of your evidence this morning.

I asked you whether parents were given a choice

to go back onto cryoprecipitate in 1983 and 1984 and you answered by reference to two parents who asked to go back on cryoprecipitate. Does it follow that that was of the parents' own initiative?

A. I think you could probably say that because I don't think there was any policy to wholesaledly -- to change everybody who was on home treatment to cryoprecipitate.

Q. Why was that not offered to every parent?

A. I'm not sure. I think it was because the feeling was that cryoprecipitate wasn't suitable for home treatment.

Q. Can you recall what reasons were given by the two parents that you remembered for wanting to revert to cryo?

A. It was the concerns about the risk of concentrate, particularly with HTLV-III, despite the fact that, you know, we were using NHS concentrate. I think there were concerns that it obviously wasn't completely free of risk and that cryo, perhaps -- well, cryo would present a reduced risk.

Q. Then I want to go back to the question of what information was given to parents if they expressed to you or Dr Hann their concerns about the risks of AIDS in 1983 and 1984. Did there ever come a time when you

told parents that it was indeed likely that AIDS was transmissible by concentrates?

A. I think there probably was a time that we would have to tell them that. I can't give you -- you know, I can't recall, actually, occasions where I said that but, you know, as I said, we gave them information on the knowledge that we had at the time and, obviously as time went on, it was obvious that AIDS was transmitted via virus, particularly through concentrates, particularly through commercial concentrates.

Q. But, is this right, you are not able to tell us when that time was reached?

A. No, as I say, I can't remember specific conversations.

Q. Did there come a time when parents who expressed their concerns to you or asked you about AIDS were told in terms that if their child were to be infected and developed AIDS the prospects were that their child might die?

A. Well, initially -- obviously, when we told them initially about being HTLV-III positive, I had to indicate that, at that point, we didn't know how many of those patients who were HTLV-III would go on to develop AIDS and I think it was well-known, it was common knowledge then, I think, that patients with

AIDS tended to die. Probably, we would have said, you know, at that point, "And if your child develops AIDS they are going to die", I don't think we would have said it at that point.

Q. Can you recall when the practice of marking samples, serum samples, as high risk was introduced at Yorkhill?

A. Well, I know it was a practice when I was working at the Royal and probably before that at the Western that if you suspected that patients were at the risk of, in those days, hepatitis B, particularly, they were marked as high risk. So all specimens from patients with haemophilia who had received blood products would be marked as high risk.

That policy ceased when it was considered that all specimens should be considered high risk, later on.

Q. Then I want to go and ask back to the question of the facilities at Yorkhill. How was the move to the new facility from the initial unit that you described funded?

A. I think probably Dr Hann would have a better idea, but I think it was funded through, you know, the health board. It wasn't funded through donations or whatever. It was -- I think it was a health board

initiative -- well, not an initiative but a heath board funded project.

Q. What about the nursing sister position within the haematology service, do you how that was funded?

A. Yes, that was funded, again, through the hospital. She was an employee of the hospital, and I have to say well supported by nursing management when it came to nursing management informing her of any appropriate meetings there were for nursing professionals involved in patients with -- who were HTLV-III positive.

Q. You referred earlier to a leukaemia junior research fellow, do you know how that individual's position was funded?

A. I presume the Leukaemia Research Fund.

Q. Do you know what kind of research they were doing?

A. Well, all the patients who -- all the children who were being treated for leukaemia were treated according to the national leukaemia trials. So UKALL, UK Acute Lymphatic Leukaemia trials, which set out the treatment at the time and then the treatment was modified depending on success of that treatment. So when I say research, they were really involved in the care of the children with leukaemia but those children would be part of UKALL trials.

Q. You have told us that you were aware of, in 1980 and

parents would have been told about, the risks of hepatitis B. What was your understanding of those risks in 1980 and the early 1980s, and what did you say to parents about the hepatitis B risk?

A. Well, obviously, I was aware of hepatitis B because it was something that, you know, I would have learned about as an undergraduate and a postgraduate in preparation of my MRCP exam. Parents were told that all blood products carried a risk of being infected with hepatitis B and, even after screening, the screening was not always -- that didn't always pick up every case of hepatitis B, and that there was a risk and, obviously, hepatitis B could in some cases be a very serious and occasionally fatal illness. That's why we monitored them for their hepatitis B status.

I also knew that some patients could become carriers without developing the illness.

Q. Was there any kind of system or systematic approach for explaining to parents whose children were going to go on to prophylactic home treatment what the risks were?

A. I don't -- risks of hepatitis B?

Q. No, sorry, more generally, what the risks of prophylactic home treatment were?

A. I don't think there was any systematic -- there

wasn't -- no there wasn't, as far as I -- well, there wasn't a policy in place.

Q. In terms of such parents to whom you would have been introducing home treatment after 1980, can you recall if it was your practice to tell them about the possible risks of developing inhibitors from prophylactic treatment?

A. I think we would have advised them about that and that we would monitor for that. I don't think -- I'm not sure if any of our patients did -- we might've had possibly one patient that developed an inhibitor but in Yorkhill we were fortunate that we didn't really have a problem with patients developing inhibitors.

Q. Were parents told that prophylactic treatment was something new and unusual and different from what was being done at other centres?

A. I don't know if they were and I'm not -- I knew it wasn't -- well, when I came to Yorkhill there wasn't a home treatment at the Royal, so I wasn't aware whether it was unusual or not and, as I say, Dr Willoughby introduced it after reading papers published by haematologists elsewhere.

Q. You told us that young, very young, patients and patients who hadn't previously been treated with concentrates would be likely to have received

cryoprecipitate if they came to the hospital for treatment. Was the reason for that because cryoprecipitate was believed to be safer for such patients?

A. I would have to say, in Dr Willoughby's day I would have to presume it was, in Dr Hann's day it certainly was. So, you know, I can't speak for -- because Dr Willoughby, as we see from his statement, although he knew there was an increased risk from concentrate, I don't know if -- I think part of it was that in the very young children cryoprecipitate was in a smaller volume and so it could be used rather more easily than larger volumes in other children.

Q. So is this right, you are telling us you don't know what Dr Willoughby's rationale would necessarily have been but you --

A. I don't.

Q. -- but insofar as Dr Hann's was concerned, you understood it was because cryoprecipitate was safer?

A. Yes.

Q. In terms of liver function tests, when did you first become involved in testing patients' liver function?

A. I think probably not long after -- well, when I arrived at Yorkhill, probably not long after and I think I probably would have said to Dr Willoughby,

"Oh, you know, when I was working at the Royal we were checking liver function tests, and, you know, do you mind if I check them in our patients?"

Q. So until your arrival that wasn't being done at Yorkhill?

A. I don't think it was being done, no.

Q. What would you -- what did you tell parents about the liver function tests and in particular the results and the levels?

A. Well, as I said, when I was taking the blood, I would say, you know, we're checking for your hepatitis your Factor VIII levels your blood count and for liver function tests, because we know that some patients with haemophilia have slightly abnormal liver function tests and we would like to just keep an eye on that.

As I say, I can't recall any of our patients having liver function tests that were abnormal to a degree that one would have concern and it may be that it was intermittent and we might have missed abnormal liver function tests.

Q. I am conscious you didn't have very many von Willebrand's disease patients, perhaps only one at the beginning of your time at Yorkhill. Were the ALT levels of von Willebrand's patients also measured?

A. I suppose if we were checking routine bloods in

von Willebrand's patients, as it was part of our normal procedure, we would have checked liver function tests as well.

Q. You've referred when I was asking you about Ruchill Hospital to knowledge of there being an IV drug user community in Glasgow. When did you become aware of the problem of AIDS amongst needle-sharing IV drug users in Glasgow?

A. Well, I think it probably would be in '84 some time. I couldn't tell you exactly but I think it was something that was quite well publicised.

Q. Moving on to 1985, in the period from 1985 to, I think, the spring of 1987 the factor concentrate that you were using for the treatment of patients would, as I understand it, have been the SNBTS heat-treated product, NY; is that right?

A. Yes, that's correct.

Q. Now, that was understood to eradicate HTLV-III but not non-A, non-B hepatitis. Was that your understanding?

A. Yes, that's correct, yes.

Q. So the children would still have been at risk of being infected with non-A, non-B hepatitis during that period?

A. Yes, but, as you know, the consensus of opinion is that patients who are infected with non-A, non-B

hepatitis would have been infected at their first exposure to concentrate. And when the heat-treated concentrate was introduced, you know, I would explain to parents, when I came back from maternity leave probably, that we were using the heat-treated concentrate because it was thought to or it was known to inactivate the virus that caused AIDS. But I also did say to them that at the present time it did not appear to inactivate whatever the virus was that was causing the abnormality of the liver tests.

Q. What about the position of patients who had not hitherto been treated or been only minimally treated and therefore might not have been exposed already to non-A, non-B hepatitis, was there a system or policy in place for ensuring that such patients didn't receive NY unless absolutely necessary?

A. I think Dr Hann's original policy would still be in place which would be cryoprecipitate for -- although it's difficult because, you know, cryoprecipitate may still have had some risk of transmitting AIDS, although very minimal but, as far as I recall, I think this policy was still in place but I can't be absolutely sure.

Q. Can you tell us anything about the approach to the treatment of patients with haemophilia B in 1985 prior

to the availability of heat-treated Factor IX concentrates?

A. I can't really. I presume we must have had to continue them on the NHS concentrate but I can't really remember, Ms Richards.

Q. You talked in your statement about the approach to consent in the 1980s and talked about consent being implied, consent to treatment being implied rather than express. Can you assist us with what you meant by that.

A. Well, I think that as was common practice, if a parent brought their child in for treatment and, you know, in the situation with haemophilia the treatment was obviously -- they would know what the treatment would be likely to be, and you would say, "Well, I think we need to treat this with ...", whatever, unless they actually said no, you would understand that they were agreeing to the treatment but -- implicit or implied consent.

Q. In the course of the 1980s, during the time you worked at Yorkhill, was consent to treatment or consent to testing ever recorded?

A. I don't think it was practice in those days to record consent. I mean, you would record bloods taken for whatever but I don't think it was common practice to

record consent given to treatment. And you would record treatment as well.

Q. And again in that period, '80 to '89, at Yorkhill, did there ever come a point at which written information about the risks and potential consequences of treatment was provided to patients or their parents?

A. I can't be absolutely sure. I don't think so but there might have been.

Q. When the patient moved from the care of Yorkhill to the Royal Infirmary in Glasgow, would their records of treatment at Yorkhill normally be transferred to the Royal Infirmary?

A. No, they wouldn't. The records from -- the Yorkhill records were kept at Yorkhill. When the patient was transferred, a letter would be written to either Professor Forbes, Professor Lowe, whoever was the director at the time, outlining what treatment the patient had received and, you know, what relevant blood tests had been and results, and any other relevant information would have been sent in the letter.

Q. Did you ever have any further contact with Dr Willoughby after he left at the end of 1982?

A. No, I didn't.

Q. Were you ever contacted about any fatal accident

inquiries into the deaths of any of the boys at Yorkhill?

A. No, I wasn't.

Q. In hindsight, Dr Pettigrew, do you think that Dr Willoughby's treatment policy, involving as it did giving children large amounts of commercial concentrates, paid sufficient attention to the risks of infection?

A. I'd have to say, first of all, that Dr Willoughby instituted his programme of home therapy and prophylactic therapy with the intention of providing a better quality of life for his patients and their families, and also to prevent the morbidity and mortality of haemophilia. So he gave treatment in good faith and, I think, on reading his statement at the time, without being fully aware or without realising the severity of the potential risks involved.

I think it would -- in hindsight, yes, it would have been better if he hadn't used commercial Factor VIII concentrate, if perhaps there had been sufficient supplies of SNBTS concentrate to treat these patients, but, unfortunately, that wasn't the case at the time or didn't appear to be the case at the time and these children were treated with quite

a lot of commercial concentrate, with the subsequent terrible consequences.

MS RICHARDS: Sir, that completes my questions for Dr Pettigrew, but can I invite you to take a break so that core participants' recognised legal representatives have an opportunity to suggest any further questions they would wish to be considered?

SIR BRIAN LANGSTAFF: Yes, certainly. How long do you think you might need?

MS RICHARDS: I already have had some questions which I have factored in already over the lunch break, so I think perhaps 20 minutes/25 minutes will be sufficient.

SIR BRIAN LANGSTAFF: Let us take a break, in that case, until 3.10.

Dr Pettigrew, the reason for this is that obviously there are people watching online who are in virtual communication only with counsel who have the right to pass questions for her to consider whether she should ask them to you or not. In order for that to happen, plainly there has to be time and discussions. So I'm sorry for taking a little bit longer than you might have expected this afternoon but nonetheless that's what we'll do and we will come back at 3.10, if that's okay.

A. Thank you, Sir Brian.

(2.43 pm)

(A short break).

(3.10 pm)

MS RICHARDS: Sir, I think we've got Mr Bowie instead of Dr Pettigrew visible on the screen at the moment. I think if Dr Pettigrew would say something, I think the screen will revert to her.

SIR BRIAN LANGSTAFF: Just say nothing for the moment, Mr Bowie.

A. Okay, I'm here.

MS RICHARDS: Dr Pettigrew, just a handful of further questions for you. You told us about the process for notifying GPs when patients were infected with HIV. Was there any similar process for notifying GPs in respect of patients who were infected with hepatitis B?

A. Yes, we would have informed patients -- sorry, GPs, yes.

Q. Then, in relation to non-A, non-B hepatitis, can you recall whether you were involved in diagnosing patients with non-A, non-B hepatitis in the 80s?

A. No, I wasn't.

Q. So would that have been done by Dr Hann?

A. Well, I don't think we made any -- I mean, you can

check with Dr Hann but I don't think we made any specific -- well, we didn't have any symptomatic patients, and other -- and I don't think we had any instance of liver function tests which suggested it. So without the test for the virus I don't think we identified it or diagnosed any patients with non-A, non-B at the time.

Q. Then, going back to the question of the commercial concentrates -- sorry, the NHS concentrates and the issue about their solubility, do you know whether that concern was ever drawn to the attention of PFC by Dr Willoughby or anyone else at Yorkhill?

A. I think that was quite well known. As I said, reading the final chapter 21 of the Penrose report -- sorry, reading the final Penrose report, chapter 21, there was reference to that. Do you want me to give you the reference?

Q. No, no, don't worry about that. I just wonder if you have any independent recollection, leaving aside what's in the Penrose report.

A. I don't, and I wouldn't have had any communication with this in eight years.

Q. You mentioned the availability of Armour funding for attendance at scientific meetings. Who would that potentially fund to attend scientific meetings, would

it just be consultants, doctors, nurses, who would it cover?

A. I was funded as well to go to some meetings by Armour.

Q. Were those meetings in Scotland or England or ...

A. Armour funded me to go to the World Federation of Haemophilia meeting. Both Dr Hann and I went, in 1984, to the World Federation of Haemophilia meeting, which was in Brazil, in Rio de Janeiro.

Q. So the expenses associated with that were funded by Armour, were they?

A. Obviously, the NHS, if -- wouldn't have funded -- certainly wouldn't have funded all of it, so Armour helped with funding.

Q. During the time when Dr Willoughby was consultant, do you recall any Armour funding for any similar meetings or conferences?

A. Yes. I was very surprised when I was asked if I wanted to go to the World Federation of Haemophilia meeting in Stockholm. And in fact, it was in 1983, but -- I say I was surprised because it was my impression, looking back, that it was earlier than that, because I don't remember anything about it.

Q. Do you know whether Dr Willoughby himself received funding for Armour to attend anything similar?

A. I don't think he went to any of the World Federation

of Haemophilia meetings, no. I don't know about any other meetings which might have been funded.

Q. Can we just look again at the table about product use.

Soumik, it's INQY0000242.

If we look at table 2, at the bottom of the page, which looks at PFC versus commercial concentrate, we can see, as you referred to earlier, that in 1981, 1982, more PFC product was being used, proportionately, than had been the case in the previous two years.

A. Yes.

Q. Whilst Dr Willoughby was still consultant.

Do you know whether that was because of -- whether his increased use of the Edinburgh PFC concentrate was because of safety concerns?

A. I couldn't answer that question. I thought it was probably because there were more supplies of PFC but I couldn't answer that with certainty.

Q. Do you have any recollection -- that can come down, Soumik.

Do you have any recollection of the boys at Yorkhill being involved in a video project in about 1986 in which they were asked questions about HIV infection?

A. Could you repeat the question, please.

Q. Do you have any recollection of boys at Yorkhill being involved in a video project in around 1986 in which they were asked questions and filmed answering about their infection with HIV?

A. I don't know if you are referring to the study that was done by Professor Parry-Jones' department.

Q. I'm simply asking a question that has been asked of me by a recognised legal representative. So do you have any recollection yourself of any such project?

A. I know there was a project -- we had approached the Department of Child and [Family] Psychiatry to see if we could get help from a psychologist to see these boys, and they -- Professor Parry-Jones thought it would be better to set up a project to assess whether there was a need for psychological intervention, and possibly as part of that the boys were videoed, but I wasn't involved in the actual -- so I couldn't say if that was the case or not.

Q. I understand it to be the case that you visited schools to talk about the stigma of HIV. Is that right?

A. No, we visited schools to advise them about -- Sister Murphy and I or Sister Murphy on her own -- not to talk about the stigma of HIV but to talk about haemophilia in general, and also to advise schools

about the precautions to be taken in the case of any blood spillage or cuts to prevent transmission of hepatitis. We didn't mention prevention of AIDS because obviously we wouldn't have told the school that the child had been infected with HIV virus. But it was common for us to do school visits for those purposes that I mentioned, with the parents' permission.

Q. In the course of those school visits was the issue of the stigma associated with HIV ever raised?

A. Not that I recall.

Q. Finally, Dr Pettigrew, was there in the first half of the 1980s at Yorkhill any process or system or forum for, as it were, whistle-blowing or raising concerns, as a junior clinician, about the policies that were in place or any concerns about risks?

A. No, there weren't, but I have to say -- I know we can look back in retrospect and see that there were possibly things could have been done differently but I did have a great respect for Dr Willoughby and he was held in high regard.

MS RICHARDS: Sir, those are the questions I have for Dr Pettigrew. I don't know whether Mr Bowie has any or whether you have any?

SIR BRIAN LANGSTAFF: Shall we ask Mr Bowie first.

Mr Bowie?

MR BOWIE: Thank you, sir, there are no questions that I would like to ask.

Questions by SIR BRIAN LANGSTAFF

SIR BRIAN LANGSTAFF: Thank you, I do have some, so if what I have to ask raises any further questions from you, Mr Bowie, I would be quite happy to entertain your asking them then but thank you for the moment. Can we have Dr Pettigrew back, please?

MS RICHARDS: Dr Pettigrew needs to say something again.

A. Yes, I'm here, sorry.

SIR BRIAN LANGSTAFF: You ended that evidence just talking about Dr Willoughby and, towards the end of this morning's session or this afternoon's session, I think, you said that he did what he did in good faith without being fully aware or without realising the severity of the potential risks.

A. I think, with respect to that, he was not aware of the risks of HIV at the time and if I, again, from what Dr Hann quoted in his evidence to Penrose of a discussion he had with Dr Willoughby, Dr Willoughby told Dr Hann that he didn't think that non-A, non-B hepatitis was a serious condition.

SIR BRIAN LANGSTAFF: Was it, would you say, part of his job to be as fully aware, as reasonably could be

expected, of the risks and the potential severity of those risks?

A. Yes, I'm sure it was, but I think, Sir Brian -- well, there was quite a lot of debate among haemophilia clinicians --

SIR BRIAN LANGSTAFF: It was his job, essentially, is what you said. Unless he was aware, how would you expect junior members of staff and, for that matter, nurses and others working under him, to be aware?

A. If he wasn't aware no, you wouldn't expect members of staff working under him to be aware, no.

SIR BRIAN LANGSTAFF: So does that mean that a junior doctor, for instance, would have no expectation that they would themselves keep themselves up-to-date?

A. I think -- you know, this is something I ask myself what steps particularly in the early '80s did I take to keep up-to-date but, as I say, I think the sort of job I was in didn't lend itself to having time to read papers and you were very much dependent on information that was passed down from seniors.

SIR BRIAN LANGSTAFF: That brings me really to something else that you said earlier in your witness statement. Soumik, could we have back witness statement 3527002 and go to page 16. It's paragraph 37.

Now, if we look at the middle paragraph there,

you're talking about the policy about informing patients, there wasn't one, and then you say:

"Initial discussions with parents ..."

This is talking about HIV, I appreciate, but presumably the same would apply to non-A, non-B:

"... were of the state of knowledge at the time ..."

Can you help me with this: one of the questions that I'm going to have to answer at the end of this Inquiry is what I make of the state of knowledge. It might be the state of knowledge of an individual clinician but the way you are using those words there, you're talking about the state of knowledge generally, aren't you?

A. I think both.

SIR BRIAN LANGSTAFF: Well, how do I work out what was the state of knowledge generally, do you think?

A. Well, that would -- well, I think the state of knowledge held by a consultant or director of a haemophilia unit who was attending HCDO meetings and being party to reports, the likes of him would have more knowledge and would be up-to-date with the state of knowledge at the time; for instance, would be up-to-date with the knowledge that patients with haemophilia had developed AIDS in 1983. The state of

knowledge, as you say, of the junior person would be dependent on that knowledge being passed on or that junior person finding out that knowledge for themselves and -- sorry, Sir Brian, can I go back to your original question?

SIR BRIAN LANGSTAFF: Yes. It's about what you meant really by the state of knowledge. Whose knowledge? It's obviously knowledge more generally. You could only tell a patient what you knew, what your state of knowledge was but you're talking here more generally.

A. Yes, and I think that refers to the fact that it was an evolving situation with regards to AIDS. I think, you know, again a parallel to the current Covid situation. The knowledge about Covid has increased over the last nine to 10, 12 -- nearly 12 months as we've learned before about it, and it was the same, I think, at that time. It was an evolving situation. It was an unprecedented situation and knowledge about the condition was accumulating all the time.

SIR BRIAN LANGSTAFF: The expression "the state of knowledge", if you're right that it must, in this context, mean the knowledge by directors who derive their knowledge from the UKHCDO, that what one is looking at is the knowledge which the body of those who are said to be experts in haemophilia care ought

to have. Is that fair?

A. I think that's fair, yes.

SIR BRIAN LANGSTAFF: So that would depend, would it, then, on them disseminating that knowledge to everyone else in, if you like, the tree of care?

A. Yes.

SIR BRIAN LANGSTAFF: Because you could only tell the patient either what you had discovered independently, which I imagine if you did you'd want to check with someone else anyway, or what you have been told through this, as it were, chain of communication.

A. I think that would be correct, yes.

SIR BRIAN LANGSTAFF: So it would follow that, in general, there ought to be some system for continuing education/information to staff who are dealing with matters at a specialist level; would that be fair?

A. Yes, and I think there was more discussion at that sort of level after 1983 in the department.

SIR BRIAN LANGSTAFF: Yes. Before 1983 you told me there really weren't any meetings at which these sorts of matters were discussed, matters to discuss individual patients, that was about it. That's how I've understood your evidence.

A. It's not so much in regard to haemophilia, no.

SIR BRIAN LANGSTAFF: Yes. One of the matters which I've

heard about from other clinicians is that there was a general lack of knowledge coming through from the UKHCDO about the discussions of those who were Reference Centre Directors at the heart of UKHCDO. The minutes weren't apparently circulated. That's what I've heard so far. If you're right, in order for advice to be given as to the state of knowledge that would have to be passed on, would it not?

A. Yes, it would, yes.

SIR BRIAN LANGSTAFF: You told us about how patients were making the running, in asking about the risks of AIDS, when they read in the papers -- which I suppose reflected one part of the state of knowledge but only a part and not a specialist part, necessarily -- what they'd read and what they understood and what they'd heard from The Haemophilia Society, which itself must depend upon the specialist advice of others,must it not?

A. Yes.

SIR BRIAN LANGSTAFF: They were coming to ask you about AIDS. None of them asked you about non-A, non-B hepatitis?

A. Not that I can recall, no.

SIR BRIAN LANGSTAFF: If you didn't know about non-A, non-B hepatitis, then they might be excused for not

knowing and not asking, I suppose.

A. Well, I certainly didn't know about it before 1984.

SIR BRIAN LANGSTAFF: Yes. It would follow that if the evidence, which I hear elsewhere, is to the effect that the state of knowledge as you've defined it, and if I accept that definition, of course, was that there was non-A, non-B hepatitis as a serious risk, that that was something that clearly should have been passed on to you and, if it had been, would you have raised it, do you think, with the patients? You hadn't raised the risk of AIDS directly. You waited for them, in effect, to ask you about it.

A. Sir Brian, are you talking about before 1984 or after 1984?

SIR BRIAN LANGSTAFF: Any time before you knew.

A. Any time before I knew, I obviously wouldn't have passed that risk on to the patients because I wasn't fully aware the risk myself.

SIR BRIAN LANGSTAFF: That follows. It's a hypothetical question really, perhaps it's unfair to ask you but I will leave it there and we can deal with it in submissions generally. It's not a reflection in respect of you, it's just a reflection generally on the evidence that I've heard.

A. You know, after 1984, as I've said already, that, you

know, when I was taking blood for liver function tests I did say to the parents that, you know, in some cases these changes could progress to more severe liver disease.

SIR BRIAN LANGSTAFF: Yes. Just going back to the question of information and knowledge, in the course of your evidence this morning, you mentioned it just in passing, I think, the name Montagnier, who, as we know, was the scientist who in May 1983 isolated the LAV virus, as he called it, which he thought was associated with the development of AIDS in some patients.

When did you first become aware of that name, do you think?

A. I couldn't honestly say. I think I was more familiar with the name Gallo and the finding of HTLV-III. So I don't think I was aware of the name Montagnier in 1983. I might have become aware of that in 1984 after Gallo also discovered the HTLV-III virus.

SIR BRIAN LANGSTAFF: So you think it wasn't until after the announcement of Gallo's discovery?

A. I can't be absolutely certain, Sir Brian, because it was quite a while ago but it's my kind of feeling that that was probably the situation.

SIR BRIAN LANGSTAFF: Yes. Thank you. The next thing

which I want to ask is completely different. Oh, before I pass away from knowledge, did anyone ever mention to you -- and this assumes that the information I have is correct, which is that Armour Pharmaceutical put in their data sheets, or in their leaflets accompanying the document, that in October 1983 that it was to be assumed that their products carried the risk of AIDS. Had no-one told you that? Because Armour products were the products that were used or in Glasgow, the Children's Hospital, and had been by Dr Willoughby before.

A. Sorry, Sir Brian, did you say October 1983?

SIR BRIAN LANGSTAFF: Yes.

A. I think by that time we were probably using predominantly NHS and very little commercial concentrate. So that information may not have been available to us at the time or to me.

SIR BRIAN LANGSTAFF: But the little that you were using was Armour still, was it?

A. The little, yes. But I think probably the Armour used in 1983 would have been more at the beginning rather than at the end. But yes, certainly if we were using some it would be Armour commercial concentrate.

SIR BRIAN LANGSTAFF: Just two further questions. The first is about children and

cryoprecipitate. You've told us, really, about cryoprecipitate and the fact that it was preferred for children because it was safer. In earlier evidence, what has been described to me in respect of cryoprecipitate was that because of the quantity that was needed for most treatments, something like a horse syringe might have been used to get access. One of the problems with children is their veins may be very small indeed, so it's not easy to get venous access, is it?

A. No, it's not. And, in fact, Dr Willoughby mentions that in his book on the chapter on haemophilia. But I think -- fortunately, we didn't have to give treatment to babies very often because they tended -- it wasn't until they became mobile that they started having the knocks and the bumps and exploring their environment. But I think in paediatric practice, people became quite expert at finding veins and, you know, you would have to sometimes put up drips for other reasons in babies and, as I say, fortunately we didn't have to treat young babies very often. In fact, I don't recall treating a young baby.

SIR BRIAN LANGSTAFF: So whatever the difficulties might have been, additional difficulties in the case of a young child or, for that matter, anyone previously

untreated with cryoprecipitate, the difficulties of gaining venous access and the volume that one had to give to produce a suitable effect, that was outweighed, it was thought, by the risks of using concentrate and outweighed, if you like, by the fact that cryoprecipitate was safer, presumably?

A. Yes. And if the younger children were being treated with cryoprecipitate, obviously it was hospital-based and, you know, a drip would be set up, so -- and again, setting up drips in paediatric practice was not -- well, it was quite common.

SIR BRIAN LANGSTAFF: Yes. Yes, thank you.

The final, final question is there were two patients who asked you to switch them effectively from home to hospital therapy, from concentrate to cryoprecipitate.

A. As far as I recall, yes.

SIR BRIAN LANGSTAFF: Can you tell me, please, without identifying any details of the patients concerned, did either end up suffering from HIV infection?

A. Definitely one, yes.

SIR BRIAN LANGSTAFF: But the other not, I see.

A. As far as I recall, yes.

SIR BRIAN LANGSTAFF: That's all that I have to ask. Thank you.

Further questioned by MS RICHARDS

MS RICHARDS: Sir, there is just one further question I have been asked to ask arising out of Dr Pettigrew's answers.

Dr Pettigrew, you referred to Gallo. Were you aware of Gallo's work prior to 1984, in particular his work in relation to HTLV-I and II?

A. No.

MS RICHARDS: Thank you.

Dr Pettigrew, this is there anything further that you will like to add?

A. Yes, if I could just say, I heard Dr Saad Al-Ismail say in his final statement to the Inquiry, he said:

"I firmly believe that the most distressing experience for a doctor is to witness harm in his patients from treatment received. This feeling of devastation, even if harm was unintended and unforeseen, is shared by my colleagues who look after patients with haemophilia."

I agree wholeheartedly with what Dr Al-Ismail said. However, I know that any distress felt by those involved in treating patients with haemophilia pales into insignificance compared with the dreadful and enduring suffering of those families affected by this tragedy.

To my mind, there's no greater tragedy for a parent than the loss of a child, and to watch that child suffer and die from a dreadful illness; and often, because of the associated stigma, without the support of the extended family and friends, the effects on the families were far-reaching. There were long-lasting emotional and physical problems not only in the children affected but in their siblings and their parents. This was a terrible tragedy and I am truly sorry for the suffering that they endured and they continue to endure.

Thank you.

MS RICHARDS: Thank you, Dr Pettigrew.

Sir Brian.

SIR BRIAN LANGSTAFF: Can I really pick up on those last few remarks which you have just made. You have given us an account which is unusual because you were a junior doctor who wasn't in a training post, working, in effect, in a career grade, if you like, throughout the period on which this Inquiry is centrally focused, for this period at any rate, in respect of HIV infection and non-A, non-B infection.

So you've given us an insight into that and what it was like but you've done it, if I may say so, with considerable humanity, and I'd like to thank you

for that. And to me, it was particularly evident when this morning, just before we broke for lunch, you were obviously struggling a little to describe what it was like to tell parents that their child had HIV infection, and when I asked you about the distress that it caused, you didn't, as some others might have, indeed some have done, spoke first about their own feelings of distress before mentioning their patient. Your response was immediately to think of the distress caused to the patients and only after that to think about yourself, and that to me said quite a lot, and quite a lot to your credit, if I may.

But you've been refreshingly straightforward and thank you for coming or for being there, rather, for allowing us to invade your home for this purpose. Thank you very much indeed.

A. Thank you, Sir Brian, for giving me the opportunity to give my testimony.

SIR BRIAN LANGSTAFF: We had to have it.

A. Yes. Thank you. Thank you, Ms Richards.

MS RICHARDS: Sir Brian, we start tomorrow at ten o'clock with the evidence of Professor Hann.

SIR BRIAN LANGSTAFF: 10 o'clock tomorrow.

(3.44 pm)

(Adjourned until 10.00 am the following day)

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