

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.

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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

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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

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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 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

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

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

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

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

16 **A.** No, absolutely none.

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

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

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

14 **Q.** The consultants under whom you worked at Yorkhill were
 15 initially Dr Willoughby, then Dr Hann from the
 16 beginning of 1983, and then Dr Gibson from around
 17 1987/1988; is that right?

18 **A.** That's correct, yes.

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

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

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1 Yorkhill.

2 **Q.** Moving on to Yorkhill, you joined Yorkhill in May of
 3 1980; is that correct?

4 **A.** Yes.

5 **Q.** And you remained there until February 1989?

6 **A.** Probably end of January '89.

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

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

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

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

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

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

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

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

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

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

11 **A.** No.

12 **Q.** I'm going to start by asking you some questions about
 13 the patients, facilities and services at Yorkhill, and
 14 we will look at a handful of documents, Dr Pettigrew.
 15 Soumik, could we have PRSE0002887, please.
 16 Dr Pettigrew, this is a report that was
 17 prepared for the purposes of the Penrose Inquiry.
 18 It's just to give us some figures about the numbers of
 19 patients.

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

22 We can see here, Dr Pettigrew, if we look, it's
 23 a table headed "Number of patients registered at
 24 Scottish Haemophilia centres - 5 year intervals
 25 1970 - 2011". We'll just look at the period when you

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1 were there. If we pick it up -- if we go to the next
2 page, please.
3 If we pick it up in 1980, we can see
4 Glasgow RHSC, 55 patients with haemophilia A, 14 with
5 haemophilia B, one with von Willebrand's disease,
6 giving a total of 70 patients. And then if we look at
7 the table below, which is for 1985, we can see
8 73 patients with haemophilia A, 20 with haemophilia B,
9 one female patient with a Factor VIII deficiency, one
10 with a Factor IX deficiency, and 13 patients with
11 von Willebrand's disease, giving a total number of
12 108 patients.

13 Does that broadly accord with your
14 recollection?

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

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

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

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

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1 Yorkhill's responsibility wasn't limited to
2 Glasgow alone. It essentially provided a service for
3 the whole of western Scotland; is that right?
4 A. Yes. I remember we even had a patient who had to come
5 sometimes from one of the Western Isles and Ayrshire,
6 south Ayrshire. I can't recall -- I heard
7 Professor Ludlam talking about the Borders, and
8 I don't recall any patients from Dumfries, but
9 certainly the rest of Scotland, and we might have
10 covered Dumfries. We might just not have had any
11 children with haemophilia from there.
12 **SIR BRIAN LANGSTAFF:** What about Galloway, would that go
13 with Dumfries?
14 A. Yes, Dumfries and Galloway would go together.
15 I think -- well, I think, strictly speaking, they are
16 under the West of Scotland, but I think there was
17 a crossover between Edinburgh and Glasgow with that
18 area. Certainly, children with leukaemia we had
19 children from Dumfries and Galloway.
20 **MS RICHARDS:** How did Yorkhill manage the relationship
21 with other smaller hospitals or non-specialist
22 hospitals that might be the first port of call for
23 such patients? Were there any systems or protocols in
24 place?
25 A. I think -- I don't think there was any systems or

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

9 **A.** That's correct.

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

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

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

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

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

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

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

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1 SHOs involved?

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

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

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

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

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1 Yorkhill had any particular status or was
2 characterised in any particular way?
3 A. Well, I wasn't really aware at the time of any
4 particular character and I noticed in Dr Willoughby's
5 statement to the Penrose Inquiry that he insisted that
6 he was -- we were never a haemophilia centre.
7 Q. Did you have any involvement with the submitting of
8 annual returns to Oxford for the patients at Yorkhill?
9 A. Well, in actual fact, no, I didn't and, as I have been
10 listening to the evidence given by clinicians, you
11 know, the thought occurred to me: did we send returns?
12 Who did it? And I think it must have been -- it was
13 possibly the chief technician in the lab that did it
14 but, you know, I don't really know who did it, but
15 certainly I wasn't involved.
16 Q. The chief technician in the lab, is that Mr Jewell?
17 A. Mr Jewell initially, and then he was replaced by
18 Robert -- I can't remember his second name, sorry, and
19 I should but I can't remember.
20 Q. So, in terms of proportion of time spent on the care
21 of patients with cancers and patients with bleeding
22 disorders, approximately how much of your time do you
23 think, or what proportion of your time, was spent on
24 the care of the children with bleeding disorders and
25 what proportion spent on other disciplines?

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1 I think, as I say, when I arrived he had set up
2 his home therapy programme and I think he had
3 established most of the boys who had a severe degree
4 of haemophilia on that home therapy programme. So
5 when I arrived there was really only those patients
6 with severe haemophilia who were younger and who
7 weren't on the home therapy, and patients who were
8 less severely affected and von Willebrand's that were
9 coming to the day bed area. So the majority of his
10 time was definitely spent with patients -- with other
11 haematological patients.
12 Q. The way you put it in your evidence to the Penrose
13 Inquiry was that Dr Willoughby was running multiple
14 services?
15 A. Absolutely, yes. I think Dr Hann was quite -- I don't
16 know surprised, he obviously knew the job that he was
17 coming to but I think he stated in his evidence that
18 it was one of the most underfunded and probably
19 understaffed. I think there's about six
20 haematology -- Dr Gibson can give you better figure,
21 but there's that sort of number of consultants now at
22 Yorkhill.
23 I should add, at some point, I think, but it
24 was probably after Dr Hann arrived, there was
25 a consultant oncologist appointed and both in

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1 A. Well, initially, it would have been probably
2 90 per cent non-bleeding disorders and, I think, as
3 I said in my statement, as time went on and I think as
4 the parents and the patients got to know me, and some
5 of the parents had brothers that I had known in the
6 Royal Infirmary, I think as time went on, I became
7 more involved with the parents and the patients as
8 they came to the day bed area and, after Dr Hann
9 arrived, again my involvement increased.
10 By the time I left, I would say it was
11 probably, maybe 50/60 per cent bleeding disorders and
12 maybe 40 per cent -- that's a very rough figure
13 really.
14 Q. What proportion of Dr Willoughby's time was spent on
15 the treatment of children with bleeding disorders and
16 what proportion spent on cancers or other areas?
17 A. I think the majority of Dr Willoughby's time would
18 have been spent -- I remember he was responsible for
19 running the lab, he was responsible for haematology
20 problems that arose in the maternity unit, which was
21 attached. He was responsible for the treatment of all
22 patients with haematological malignancies and, at that
23 time, he also dealt with a lot of patients who had
24 what we call solid tumours, other cancers in children,
25 as well as bleeding disorders.

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1 Dr Willoughby's time and Dr Hann's time, there was
2 close co-operation -- and with the radiotherapist
3 oncologist at the Western Infirmary, as well, who
4 dealt with the radiotherapy treatment of patients with
5 leukaemia.
6 Q. How often would you discuss issues relating to the
7 care of patients with bleeding disorders with
8 Dr Willoughby?
9 A. I think if there was anything that was other than
10 routine, if there was any patient who came -- well,
11 the same with all the patients who came to the day bed
12 area. If there was anything I felt I needed to
13 discuss with Dr Willoughby, any problems that I felt
14 weren't straightforward or within my remit, I would
15 discuss it with Dr Willoughby. So that would
16 (unclear) as well.
17 Q. Again, during the time that you were there in 1980 to
18 1982, when Dr Willoughby was still there, how often,
19 and in what kind of circumstances, do you recall
20 parents and patients with bleeding disorders actually
21 seeing and being seen by Dr Willoughby, rather than by
22 you?
23 A. I think, if they were -- certainly if they were
24 admitted to the ward they would be seen by
25 Dr Willoughby because we all did a ward round in the

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

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

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

14 **A.** I can't really say. I know that, and you'll be aware,
15 that Dr Willoughby wrote a textbook on paediatric
16 haematology which is quite highly -- or was highly
17 regarded at the time, and he did have a chapter on
18 bleeding disorders with many references.
19 Dr Willoughby was the type of clinician that tried to
20 keep abreast of developments. I think you read in his
21 statement about contacting a paediatrician in America
22 about bone marrow transplants. I presume he went to
23 the UK, even though we weren't a haemophilia centre --
24 I think he probably -- I presume he went to some of
25 the UK and Scottish haemophilia directors' meetings as

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

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

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

5 **A.** Yes.

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

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

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

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

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

23

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

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

7 **A.** Yes, sorry. No.

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

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

16 **A.** Yes.

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

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

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1 bleeding disorders, to your knowledge?

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

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

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

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

19 We can see here it's headed Glasgow Royal
20 Hospital for Sick Children, and we've got figures from
21 1977 onwards of the kind of volumes of products used.

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

24

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

4 Could we then have INQY0000242, please, Soumik.

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

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

20 Is that consistent with your recollection?

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

24 Q. Yes.

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

25

1 A. I think it does, yes.

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

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

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

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

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

27

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

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

10 Then if we just look at table 2, towards the
11 bottom of the page, we can see that, in terms of the
12 source of the Factor VIII concentrate, in 1979 it's
13 28 per cent from PFC, *so the NHS concentrate*,
14 72 per cent commercial. In 1980 it's 19 per cent NHS,
15 81 per cent commercial. In 1981, 42 per cent NHS,
16 52 per cent commercial. In 1982, 51.5 per cent NHS,
17 48.5 per cent commercial.

18 If we go over the page please, Soumik, we can
19 then see in 1983 there's a shift, and the majority
20 then, and this is obviously when Dr Hann has arrived,
21 is NHS concentrate, with only a small amount,
22 3 per cent, being commercial, and then very little
23 commercial in 1984 and none in 1985 onwards.

24 Again, does that reflect broadly your
25 recollection?

26

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

3 Can I just point out that in chapter 21 of the
4 final report of the Penrose Inquiry, there is
5 a reference -- do you want me to give you it? -- to
6 a difficult or slight shortage of SNBTS '78/'79 and
7 '79/'80, and that would be the year, '79, that
8 Dr Willoughby had started his home therapy programme.

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

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

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

28

1 issues of access or reliability of access?

2 A. Yes.

3 Q. Do you recall him expressing any views to you about

4 the greater convenience of the commercial concentrates

5 and what he meant by that?

6 A. I think he probably did because it was -- the product

7 was easier to use. It dissolved more quickly, it was

8 provided in packs which had all the other necessary

9 equipment in it -- you know, the cotton wool, the

10 little plasters, I'm not sure -- they may have had the

11 little butterfly needles that we used, but I just --

12 he obviously felt that it was a more convenient

13 product to be used. And you obviously have his

14 statement to the Penrose Inquiry regarding his opinion

15 about risks and/or otherwise.

16 Q. Dr Hann was plainly able to make the switch to almost

17 entirely, and then entirely, SNBTS product fairly

18 early in 1983, given what we've seen from the figures

19 that we looked at.

20 Do you know of any reason why Dr Willoughby

21 couldn't have made that same switch earlier?

22 A. Well, I think, if I remember when that table was up,

23 there was a reduction in the use of commercial

24 concentrate in 1982 when Dr Willoughby was there. It

25 was my impression at the time that Scotland was

29

1 representative from Armour would come, I think, to

2 speak to Mr Jewell and he would come through the day

3 bed area and basically, you know, sort of say hello to

4 the haemophilia sister and myself, and just check, you

5 know, were we having any problems with the product

6 or -- that would be the extent of my involvement with

7 him.

8 Q. Other than the home treatment packs, and perhaps the

9 Armour packs including the kind of bits and pieces of

10 apparatus that might be required, was there anything

11 else that was funded by Armour or any other

12 pharmaceutical company in those early 1980s?

13 A. I mean, the representative might have given us a pen

14 or two when they came in and they did fund some

15 attendance at scientific meetings but there was no

16 other facilities or things that were funded by them.

17 Q. In terms of DDAVP, we'll come on in a little while to

18 precisely what categories of patients were treated and

19 how, but the materials we've looked at, the report

20 that was sent to the Penrose Inquiry, doesn't record

21 DDAVP being used in the early 1980s. How confident

22 are you that it was used prior to, I think, 1984,

23 which is the first reference, although with no

24 quantities actually being specified?

25 A. I think it was used before 1984. I cannot, you know,

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1 achieving self-sufficiency at that time. I know

2 there's been a lot of discussion about when did

3 Scotland achieve self-sufficiency, and the opinion

4 varied between those in blood transfusion and the

5 clinicians, but it was my impression that

6 Dr Willoughby was able to access increased supply of

7 NHS concentrate from 1982 because there was a better

8 supply from the PFC.

9 Q. Were you ever party to any discussion or dialogue that

10 Dr Willoughby might have had with representatives of

11 the Blood Transfusion Service or PFC?

12 A. I didn't have anything to do with procurement.

13 Q. In terms of the actual arrangements for the

14 procurement of the commercial product, did you have

15 any involvement with that?

16 A. No, it was through, again, Mr Jewell, the chief

17 technician, and I wasn't actually aware of how it was

18 paid for or anything but I see from Dr Willoughby's

19 statement it was ordered through pharmacy.

20 Q. You have referred in your statement to there being

21 visits from Armour and, indeed, other pharmaceutical

22 companies. Were you ever part of any meetings that

23 took place when pharmaceutical representatives of

24 Armour or other companies visited?

25 A. What tended to happen is, from time to time, the

30

1 with any -- I cannot really say for definite whether

2 it was used earlier than Dr Hann's arrival. I would

3 be surprised if I hadn't discussed it with

4 Dr Willoughby because obviously I had experience of

5 using it, but I couldn't, you know, say I definitely

6 recall giving DDAVP -- in fact, you know trying to

7 recall giving DDAVP to individual patients after that

8 period is difficult to recall.

9 So I can't really say with any certainty but,

10 as I say, because I had used it I would be surprised

11 if I hadn't discussed it with Dr Willoughby or tried

12 to use it.

13 Q. Now, the treatment policy, the decision as to what

14 kind of treatments to use and to use commercial

15 products and so on, those are matters, as I understand

16 your evidence to Penrose and to this Inquiry, that

17 were for Dr Willoughby. You did not have any

18 involvement in those decisions?

19 A. No.

20 Q. That's correct: you didn't have involvement?

21 A. Didn't have -- I had no involvement, no.

22 Q. When it came to the treatment of an individual

23 patient, so a patient who would turn up as and when,

24 as you described it, how would the decision be taken

25 as to how to treat that patient, would it depend upon

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1 what was in stock at any particular time? Did you
 2 have an involvement in that kind of individual
 3 decision?
 4 **A.** First of all, I think it would depend on what the
 5 patient had received in the past and it would depend
 6 on the age of the patient. I think we would probably
 7 try and use NHS concentrate when the patients attended
 8 hospital but that might not always have been possible,
 9 because we'd have to go over or phone over to the lab
 10 and get whatever was available and, obviously, the
 11 younger patients, and patients that may not have
 12 received treatment before, we'd try and treat with
 13 cryoprecipitate.
 14 **Q.** The home treatment programme, which you have already
 15 alluded to, that was established by Dr Willoughby
 16 prior to you taking up your role as a clinical
 17 assistant?
 18 **A.** That's correct, yes.
 19 **Q.** Your written evidence to the Penrose Inquiry suggested
 20 that when you started you thought there were about six
 21 children on home treatment.
 22 **A.** At least that number. It might have been slightly
 23 more but I can't give you an exact figure.
 24 **Q.** Over the next two and a half years or so, again before
 25 the arrival of Dr Hann, did the numbers of patients on

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1 **A.** Yes, particularly if they were frequent attenders, and
 2 I think Dr Winter said it was age three and I think it
 3 was Professor Ludlam said age four. Basically,
 4 I think, probably round about three would have been
 5 the age they would be considered, especially if they
 6 lived at some distance. The worry was that, you know,
 7 if they lived at some distance and there was an acute
 8 bleed and an ambulance would call, sometimes
 9 an ambulance would only take the child to the nearest
 10 hospital, which could be the local district general
 11 hospital. So it was probably felt more important that
 12 these patients who lived at a distance were able to
 13 treat themselves, or parents were able to treat their
 14 child immediately.
 15 **Q.** Were all the patients who were receiving home
 16 treatment patients with haemophilia A or did you have
 17 haemophilia B patients on home treatment as well?
 18 **A.** I think we had certainly one patient with
 19 haemophilia B that was on home treatment, at least.
 20 **Q.** In terms of the products used for the treatment of
 21 haemophilia B, was it, as far as you can recall,
 22 generally the PFC Factor IX that was used?
 23 **A.** Yes, it would be the PFC -- I don't think we used
 24 commercial concentrate at all. Well, I don't think we
 25 did at all.

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1 home treatment increase?
 2 **A.** Well, I think they must have. I was trying to
 3 remember being involved in training and, in fact,
 4 there was a witness statement to the Penrose Inquiry
 5 that did -- who said that I was involved in training
 6 in 1981. So I must have been involved in training
 7 more patients. I think the sister did most of the
 8 training and then I would kind of supervise towards
 9 the end to make sure that everything was satisfactory.
 10 **Q.** Do you know how patients were selected for home
 11 treatment?
 12 **A.** I think they were selected on the basis of, first of
 13 all, severity, frequency of bleeds, distance to the
 14 hospital. I mean, obviously part of the rationale for
 15 home therapy is that any bleeding episodes can be
 16 treated as soon as possible, and for patients who were
 17 living further away from the hospital that obviously
 18 would be an important factor.
 19 So that was severity, frequency of bleeds,
 20 frequency of attendance at hospital; I think those
 21 would be the main considerations.
 22 **Q.** What about age? Was there an expectation that when
 23 a patient with, say, severe haemophilia A got to
 24 a particular age they'd be eligible for home
 25 treatment?

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1 **Q.** Now, as you already mentioned, the home treatment
 2 programme instituted at Yorkhill included prophylactic
 3 treatment.
 4 **A.** Yes.
 5 **Q.** Do you, again, recall any discussion with
 6 Dr Willoughby about why he took that approach, which
 7 may have been thought to be unusual for the time?
 8 **A.** I think Dr Hann described it as ahead of his time.
 9 Yes, I did ask him about the rationale for
 10 prophylactic treatment and he said, well, you know,
 11 spontaneous haemarthrosis occur in patients who
 12 have -- who are severe haemophiliacs who have
 13 1 or less per cent of Factor VIII and he felt that
 14 if -- I think he had looked at studies of prophylactic
 15 treatment, particularly in the United States, and he
 16 felt that if the boys were given regular Factor VIII,
 17 I think it was either twice or three times weekly, it
 18 might -- it would be able to maintain their
 19 Factor VIII levels, at a low level but at a level that
 20 might prevent spontaneous haemarthrosis, and one of
 21 his aims for introducing home therapy apart from being
 22 able to treat immediately, reduce hospital visits,
 23 et cetera, was to try and prevent the dreadful
 24 crippling haemophilia arthropathy that those who were
 25 involved in haemophilia before the '80s or even in the

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1 '80s would be well aware of.
 2 I think Professor Ludlam gave a very good
 3 description of, you know, the types of problems that
 4 this led to.
 5 **Q.** The effect, of course, of a prophylactic home
 6 treatment programme would be that patients were
 7 receiving significantly more by way of concentrate
 8 than they would if they were simply being treated and
 9 as when required.
 10 **A.** Absolutely.
 11 **Q.** You've said in your statement that cryoprecipitate
 12 wasn't used for home treatment, wasn't regarded as
 13 practicable. Have you yourself ever had any direct
 14 experience of the use of cryoprecipitate for home
 15 treatment?
 16 **A.** No. In fact, I haven't. And again, listening to the
 17 evidence that has been given by clinicians, I remember
 18 being quite surprised when I heard that it had, a way
 19 back in the early days, been used I think -- was it
 20 the Royal Free? Because it was -- I was always led to
 21 believe, and I think again from the evidence that
 22 you've heard, that it was generally felt that it
 23 wasn't suitable for home treatment for various
 24 reasons.
 25 **Q.** What was cryoprecipitate used for then at Yorkhill?

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1 gently had to swirl it around, as it were, to try and
 2 encourage it to dissolve. And I think that was
 3 recognised. Again, in chapter 1 of the final report
 4 of Penrose there is talk about the difficulty of the
 5 product dissolving, and I think it was Dr McClelland
 6 or Dr Watt saying that they were working on this.
 7 **Q.** To what extent, as far as you're aware, was that
 8 a factor in Dr Willoughby's decision-making?
 9 **A.** Well, it wasn't a factor that he gave me. I noticed
 10 that in his statement he did say that the commercial
 11 product was easier to use because it did dissolve more
 12 quickly.
 13 **Q.** That's not something he discussed with you?
 14 **A.** No.
 15 **Q.** What, if any, discussions did you have --
 16 **SIR BRIAN LANGSTAFF:** Just before you go on to the next
 17 question, what sort of time are we talking about, the
 18 difference of time to dissolve the PFC concentrate
 19 compared to the time it took to dissolve the
 20 Armour concentrate?
 21 **A.** I think it was -- you're probably talking in terms of
 22 double the time, Sir Brian. Perhaps, you know, less
 23 than five minutes for the Armour and maybe, you know,
 24 five to ten minutes for the NHS concentrate.
 25 But, you know, that's trying to dig into my

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1 We've seen the relatively modest amounts in terms of
 2 proportion that were used. When was it used?
 3 **A.** Well, it was used for von Willebrand's patients or
 4 patients with von Willebrand's, and I think in small
 5 babies, where you didn't need to use such a large
 6 amount, it would be used, and younger children. When
 7 I say younger, you know, you're probably talking about
 8 maybe up to two years.
 9 **Q.** Is it fair to say that it was the combination of home
 10 treatment and prophylaxis that accounted for the
 11 majority of the concentrate use at Yorkhill in the
 12 early 80s?
 13 **A.** I think it accounted for the majority but I can't
 14 honestly say that patients who weren't on home
 15 treatment did not at some point receive commercial
 16 concentrate.
 17 **Q.** Your oral evidence to the Penrose Inquiry discussed
 18 the length of time that could sometimes be taken for
 19 the SNBTS product to dissolve. What do you recall
 20 about that?
 21 **A.** It just took a little longer. I mean, the commercial
 22 product dissolved really fairly quickly but the SNBTS
 23 you had to encourage it by gently -- well, I think
 24 I described in the Royal they had a roller system to
 25 help dissolve it but at Yorkhill we didn't so we just

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1 memory from many years ago. But it certainly was
 2 probably of that magnitude, maybe double the time.
 3 **SIR BRIAN LANGSTAFF:** Thank you.
 4 **MS RICHARDS:** Dr Pettigrew, just to remind you of your
 5 oral evidence to the Penrose Inquiry, you said it
 6 could take up to about half-an-hour to dissolve the
 7 SNBTS product.
 8 **A.** No, I don't think so. I don't know why I said that,
 9 unless there was some bottles that were particularly
 10 stubborn.
 11 **Q.** What, if any, discussions did you have or what views
 12 were expressed to you by Dr Willoughby on the question
 13 of the relative safety of commercial products and
 14 SNBTS products?
 15 **A.** I don't think we ever had a discussion about that, and
 16 I don't think it was brought to my attention by him.
 17 **Q.** What was your own understanding --
 18 **A.** I don't think it was brought to my attention by him,
 19 sorry.
 20 **Q.** What was your understanding, if any, in the
 21 early 1980s, your own understanding, of the relative
 22 safety of commercial versus SNBTS products?
 23 **A.** I think I was probably aware that the commercial
 24 product carried more risk, certainly, of hepatitis B,
 25 because of -- I knew it was from paid donors but that

40

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

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

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

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

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

25 **Q.** When you were involved with patients who were being

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

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

10 **A.** Yes.

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

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

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

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

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

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

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

42

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

4 **A.** Yes.

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

11 **A.** That's my recollection, yes.

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

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

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

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

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

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

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

13 **Q.** Yes.

14 **A.** -- was moderate, am I right?

15 **Q.** Yes.

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

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

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

6 **A.** Yes, thank you, Sir Brian.

7 **SIR BRIAN LANGSTAFF:** I look forward to seeing you at 5 to
 8 12.

9 **A.** Thank you very much.

10 (11.30 am)

11 (A short break)

12 (11.57 am)

13 **SIR BRIAN LANGSTAFF:** Yes.

14 **MS RICHARDS:** Dr Pettigrew, in the first half of the
 15 1980s, when a previously untreated patient presented
 16 to Yorkhill, what would the process have been for
 17 deciding how to treat them?

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

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

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

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

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

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

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

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1 certainty.

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

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

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

8 **A.** Yes.

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

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

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

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

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1 know, give you specifics.
 2 Q. Again, I think Professor Hann will tell us tomorrow
 3 about producing some written standard operating
 4 procedures or policies. Prior to his arrival, had
 5 there been any written policies or protocols as to how
 6 to treat patients?
 7 A. With haemophilia, no.
 8 Q. I just want to look at a couple of documents with you
 9 about heat-treated products prior to 1985.
 10 Soumik, could we have AMRO0000137, please.
 11 So we can see here, Dr Pettigrew, a letter from
 12 Armour dated 13 March 1984. It's addressed to the
 13 Medicines Division at the Department of Health and
 14 Social Security, and it says:
 15 "Dear Sirs ...
 16 Refers to a CTX number and then heat-treated
 17 Factor VIII.
 18 "We wish to add the following additional
 19 investigators to our Clinical Trial Exemption
 20 0231/0070A for Heat-treated Factorate."
 21 And then your name and Dr Hann's name, and then
 22 we see Professor Hardisty at Great Ormond Street.
 23 What, if anything, can you recall about your
 24 involvement with this process?
 25 A. I really can't recall anything, when this document was

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

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1 sent to me -- I couldn't recall the situation.
 2 I presume because it was 19 March '84 that Dr Hann
 3 might have felt that if we had an untreated patient
 4 that required concentrate that it might be better to
 5 use a heat-treated rather than an un-heat-treated
 6 product at that time. And I presume that this
 7 wouldn't have been licensed then and perhaps was part
 8 of a trial, but I don't really remember.
 9 Q. Do you recall actually giving heat-treated Factorate
 10 to any patient at this time?
 11 A. I don't recall giving it to anybody you know -- this
 12 product, no.
 13 Q. When do you recall first using heat-treated products?
 14 A. Well, I know that there was a small amount sent to
 15 Glasgow and Edinburgh by SNBTS in December of '84.
 16 I think they sent approximately a month's supply.
 17 Now, whether that included Yorkhill at the time,
 18 I don't know.
 19 Then I think heat-treated Factorate was
 20 supplied in sort of regular amounts from January '85.
 21 And I think, as I had forgotten during the Penrose
 22 Inquiry but remembered when I was preparing my written
 23 evidence for this Inquiry, I went on maternity leave
 24 probably mid-to end of January so the beginning
 25 of May. So it might have been May 1985 before I had

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

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1 Q. What were the sources of information that you had in
2 the first half of the 80s to keep up-to-date with
3 scientific and medical developments?
4 A. Well, as was probably quite common in those days, it
5 was sort of my position, not being a training post and
6 not training for a specialty, a lot of information
7 would come -- as somebody said, it would cascade down
8 the hierarchy. So from my colleagues and, obviously,
9 my seniors, and going to meetings, that would be the
10 main source of information.
11 Q. What journals did you read regularly in the first half
12 of the 80s?
13 A. Well, I have to confess I didn't actually -- I didn't
14 subscribe to any journals. I didn't have ready access
15 to journals because of my situation -- you know, to
16 have access to a journal, I would need to go the
17 library, but because of my situation I tended to go to
18 Yorkhill in the morning and it was usually a question
19 of rushing home late in the afternoon. So there
20 wasn't really time to go and sit in the library and
21 read journals. And I had let my subscription for the
22 BMA lapse when I left the Royal Infirmary and I didn't
23 resubscribe to the BMJ until probably later in,
24 I think, 1988 when they introduced a special
25 subscription for those that were earning less than

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1 patients, we've touched on this to some extent
2 already, before I ask you specifically about the
3 provision of information about hepatitis, to what
4 extent was advice or information provided to parents
5 about lifestyle and how to manage lifestyle and
6 activities to reduce the risk of serious bleeds?
7 A. Well, that was something that was discussed with them
8 often and repeatedly. You know, we talked about the
9 types of sport that they could and couldn't engage
10 with and ways of trying to prevent bleeds without
11 seriously restricting their normal lifestyle. So that
12 was emphasised, really.
13 Q. Did parents ever ask you about the relative risks --
14 sorry, the relative safety of the treatments that they
15 were using?
16 A. I don't recall in the early 80s, no, any parents
17 asking about the relative risk of products.
18 Q. When do you first recall any such discussions taking
19 place?
20 A. I think when the -- when the Acquired Immune
21 Deficiency Syndrome was beginning to appear and, you
22 know, questions were being asked about that.
23 Q. We'll come on to that in a few minutes more
24 specifically. Did Dr Willoughby ever give you any
25 advice or instruction or guidance as to the kind of

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1 a certain amount a year.
2 Q. You may recall being asked about this by the chair at
3 the Penrose Inquiry but is this right, that there
4 wasn't at Yorkhill, in the early 80s at least, any
5 kind of system for providing junior doctors such as
6 yourself with updates about medical and clinical
7 developments?
8 A. Probably not. There might have been a better system
9 for those in training such as the leukaemia research
10 fellow or the haematology registrars and SHOs.
11 Q. You referred in your statement to acquiring
12 information from scientific meetings, and you have
13 given an example of the meeting you attended in 1984
14 at the Royal Free. How often, again in the first half
15 of the 80s, would you be attending similar meetings?
16 A. I couldn't really recall. I couldn't give you
17 a figure for that. Well, not scientific meetings but
18 we did have -- you know, in Yorkhill, obviously there
19 was a weekly clinical meeting for everybody in the
20 hospital. And in the morning meetings that we had as
21 a team, a haematology team before the ward rounds,
22 I think Dr Willoughby would have told us about any
23 startling innovations or ... but there was never
24 really very much about haemophilia discussed.
25 Q. Now, in terms of the information that was given to the

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1 information to provide to patients about the risks of
2 treatment?
3 A. Not that I can recall, but obviously Dr Willoughby
4 made sure, and we all made sure, that the haemophilia
5 patients were encouraged to join The Haemophilia
6 Society and, you know, the leaflets were available in
7 the treatment room in the day bed and then
8 subsequently up in ward 7A.
9 Q. Given what you have told us about your own
10 understanding about hepatitis risks up until a point
11 in 1984, does it follow that you wouldn't have been
12 telling patients or their parents about the risks of
13 non-A, non-B hepatitis because you weren't aware of it
14 particularly and you weren't aware of its potential
15 seriousness?
16 A. Up until 1984, yes, that's correct.
17 Q. Once you did become aware, following your attendance
18 at the meeting you described in 1984, did your
19 practice change in terms of what you told patients?
20 A. Well, it changed in that when I was checking the liver
21 function tests I would say, "I'm -- you know, I'll
22 check liver function tests because, you know, we know
23 that in some patients with haemophilia they can be
24 abnormal and we also know now that in some of these
25 patients they can progress to more severe liver

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1 disease."

2 And I think I would have perhaps said, "And we

3 don't know if this is due to a virus but we think it's

4 not due to hepatitis A and it's not due to

5 hepatitis B."

6 Q. So that's your best recollection of from some time in

7 1984 onwards?

8 A. That would be my recollection of what I would -- so

9 I would give them an indication that there was

10 a possibility that in some patients with haemophilia

11 the abnormalities in liver function tests could

12 progress to more serious liver disease and that it was

13 possibly due to a virus which wasn't hepatitis A and

14 wasn't hepatitis B.

15 Q. In your witness statement to this Inquiry -- Soumik,

16 it's WITN3527002, please -- and if we go to page 9,

17 please -- we just look at the first paragraph at the

18 top of the page you say this:

19 "Where a child, who was normally treated with

20 cryoprecipitate, received Factor concentrate as

21 treatment for a bleeding episode requiring prompt

22 control and higher levels of circulating Factor VIII,

23 as previously described, the reason for this would be

24 discussed with the parents. Moreover, when training

25 for home therapy, the rationale for using Factor

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1 which is another statement you gave to the Penrose

2 Inquiry, and if we go to the second page, please,

3 Soumik, paragraph 10 which is halfway down the page,

4 you say in paragraph 10 in the second line:

5 "As far as I can recall, I would have been

6 first aware of the possibility of that AIDS was caused

7 by an agent transmitted by blood and blood products in

8 1983."

9 I've shown you those in some respects as an aid

10 to memory. What can you recall about learning about

11 AIDS and the possibility that AIDS might infect

12 haemophiliacs?

13 A. First of all, I think the first document you showed,

14 when I said '82/83, I think in my oral statement to

15 Penrose I corrected that to '83 and the first --

16 I remember first becoming aware in 1983 -- I think it

17 was, the leukaemia research fellow advised me that he

18 had read the paper in the New England medical journal,

19 which had just related the AIDS occurring with

20 patients with haemophilia in the United States and

21 that was the first I was aware that it was occurring

22 in patients with haemophilia.

23 Q. Does it follow from that that it's not something

24 which, in the second half of 1982, Dr Willoughby had

25 raised or discussed with you at all?

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1 Concentrate as opposed to cryoprecipitate would be

2 explained."

3 Could you just tell us what you mean by that?

4 What are the reasons or the rationale that would be

5 given to patients in those circumstances?

6 A. I think there I would be talking about -- probably

7 from the point of view of the nature of the bleeding

8 episode and the requirement for treating that bleeding

9 episode. I don't think there would have been

10 a discussion there about different risks.

11 Q. Coming on then to your knowledge of AIDS and the

12 possible association with blood products, can we look,

13 first of all, at a statement you gave to the Penrose

14 Inquiry. Soumik, it's PRSE0001126. If we look at the

15 paragraph that's numbered (a), bottom half of the

16 page, we can see that you say in the third line:

17 "During the period where there was increasing

18 concern that a transmissible infectious agent was

19 present in blood and blood products (1982/83) we would

20 advise parents of this concern but at that time there

21 was no definite proof."

22 So just ask you to note that. I am going to

23 show you one other document again and then ask you

24 a question about it. So you use there the terminology

25 of definite proof. If we then look at PRSE0003995,

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1 A. No.

2 Q. What, if anything, can you recall about how your

3 knowledge and understanding in relation to AIDS

4 developed in the course of 1983?

5 A. I think, you know -- well, obviously I kept up-to-date

6 with -- there was a lot in the press about it and, at

7 that time, Dr Hann had arrived and I think there would

8 have been discussions with him about the progression

9 of knowledge of AIDS and, as I say, at some point

10 I did -- and, obviously, we would be going -- if there

11 was any meetings that were appropriate we would be

12 sent to them. As I said in my statement, I did try

13 and obtain, and did manage to obtain, the MMWR. I'm

14 not sure when that would have been but, you know,

15 I felt that was one of the best ways of keeping up

16 with the development of the knowledge of Acquired

17 Immune Deficiency Syndrome.

18 Q. Can you remember the detail or content of any of your

19 discussions with Dr Hann about AIDS in the course of

20 1983?

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

22 Q. Do you recall whether you became aware in the course

23 of 1983 of the fact that a patient in Cardiff was

24 understood to be suffering from AIDS, a haemophiliac

25 patient?

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

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

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1 There was also, again, information from The
 2 Haemophilia Society and lots of information in the
 3 press, et cetera.
 4 Q. In terms of the information from The Haemophilia
 5 Society, did you yourself actually read what The
 6 Haemophilia Society was saying in their bulletins to
 7 see whether you thought it was appropriate?
 8 A. Yes, I would read The Haemophilia Society bulletins,
 9 yes.
 10 Q. Would The Haemophilia Society bulletins have been part
 11 of the information that contributed to your
 12 understanding of the risk of AIDS?
 13 A. They were probably part of that, yes.
 14 Q. If we look at your statement again, please,
 15 Dr Pettigrew, WITN3527002, and if we go to page 16,
 16 I'm going to show you a short passage from this and
 17 a short passage from your evidence to Lord Penrose and
 18 then ask you some questions, Dr Pettigrew.
 19 So if we look at page 16, halfway down the
 20 page, a little further down, you say this:
 21 "There was no policy as to inform parents about
 22 the risks of HIV which were not identified until
 23 1983/84 and the knowledge about the risks of
 24 transmission of a causative agent and the natural
 25 history of the disease evolved slowly ..."

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

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(16) Pages 61 - 64

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

14 Q. If what you were telling them depended on your
15 evolving knowledge, would you be telling them
16 essentially the same message as you were picking up
17 from The Haemophilia Society, using words such "no
18 definite proof" or "no conclusive evidence"?
19 A. I think when I use "no definite proof" there, I think
20 I'm referring to the fact that the virus hadn't been
21 isolated until into -- well, I suppose Montagnier was
22 perhaps '83, and Gallo was '84. But I would have
23 followed any knowledge that I'd acquired through
24 discussions with Dr Hann, and he obviously would have
25 the minutes from the UKHCDO amongst other sources.

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1 disease for which there was no treatment?
2 A. Well, I think part of that would be when we were
3 changing to NHS concentrate, because we would explain
4 to the parents, as I say -- you know, up until
5 probably the question of AIDS arose, the parents quite
6 liked using the commercial concentrate, so we would
7 have to explain to them that we were changing to the
8 NHS concentrate because it was felt that that carried
9 less of a risk of transmitting AIDS -- at that time it
10 was thought anyway. So that would be part of the
11 discussion as well.
12 Q. Do you recall ever discussing with/telling a parent
13 about the Cardiff case or the Bristol case?
14 A. I can't recall telling any parent about those cases,
15 and I don't know if such -- it would have come up in
16 discussion if perhaps they had seen it in the press.
17 I don't know. But I can't recall.
18 Q. The policy at Yorkhill, as I understand it, was to
19 continue using concentrates, albeit the concentrates
20 would be SNBTS rather than commercial concentrates.
21 Were you therefore offering reassurance to parents
22 that the treatment was safe?
23 A. No, I think we were saying to parents that it is
24 thought that the SNBTS-produced concentrate added less
25 of a risk -- at that time there was no cases reported

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1 Q. Is this right you can't remember what actually you
2 said to parents and what you said may have changed
3 over time as your understanding changed?
4 A. I think that's correct, yes.
5 Q. Do you accept that as a matter of principle, the
6 parents of the boys at Yorkhill had a right to know
7 that factor concentrates might infect their children
8 with a fatal disease for which there was no treatment?
9 A. I think when that became -- when it was apparent that
10 that was the case, it would have been better if they
11 had been informed and perhaps if there had been
12 a policy not only in our unit but in all units to
13 inform parents and patients of this.
14 And, as I say, it was -- I think we've heard
15 before, it was a difficult time. It was a time of
16 confusion, it was a time of evolving evidence, and,
17 you know, it's -- we can look back and say, yes, you
18 know we should have done it better, but at the time
19 there was a lot of -- there still was a bit of
20 confusion and -- but we could have done it better,
21 yes.
22 Q. Do you recall a time coming at which you and/or
23 Dr Hann actually did spell out to parents that this
24 was a likely or potential risk of the factor
25 treatment, that their child could develop a fatal

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1 in Scotland, and it was thought carried less of a risk
2 of transmitting the putative agent for Acquired Immune
3 Deficiency Syndrome at that time.
4 Q. Would any of the discussions that you are referring to
5 about risks of AIDS have been documented in the
6 patients' records?
7 A. Well, again, reflecting on that, I don't think so
8 because these discussions would be unscheduled visits
9 by the parent, usually, to the treatment room. The
10 case notes were held centrally in the records office
11 and they were only brought to the treatment room when
12 a patient came. So we wouldn't have had the notes.
13 And again, perhaps, we should have gone and got the
14 notes and recorded these discussions in the notes, but
15 at the time that wasn't the practice.
16 Q. Was any parent in '83 or '84, specifically because of
17 the risk of AIDS, offered the choice to return to
18 treatment with cryoprecipitate?
19 A. As far as I recall, I think there was certainly one or
20 perhaps two parents that asked about using
21 cryoprecipitate and those two parents -- those two
22 patients did use cryoprecipitate but, as far as I
23 recall, it then became hospital-based rather than home
24 treatment-based treatment.
25 Q. What, if any, steps were taken at Yorkhill, first of

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1 all under Dr Willoughby, to reduce or minimise the
 2 risk of patients becoming infected with a virus?
 3 A. Well, I think Dr Willoughby, as he said in his
 4 statement, was unaware of the risk of AIDS at his time
 5 at Yorkhill. Dr Hann, as we've discussed, introduced
 6 a policy of using SNBTS Factor VIII rather than
 7 commercial Factor VIII because it was thought to carry
 8 less of a risk of transmitting the Acquired Immune
 9 Deficiency Virus, or the putative agent, at that time
 10 and he also introduced a policy, a written policy, of
 11 using cryoprecipitate in newly diagnosed, previously
 12 untreated patients and in the younger children not on
 13 home therapy, and, obviously, my older patients who
 14 had mild or moderate haemophilia and in
 15 von Willebrand's disease.
 16 Q. Just if we leave aside --
 17 A. Sorry, can I just also say, Dr Hann wasn't -- at that
 18 time didn't support prophylactic treatment, and
 19 I think over that period prophylactic treatment was to
 20 a greater or lesser extent reduced.
 21 Q. Just sticking, if we may, for a moment to the time
 22 before Dr Hann's arrival, so whilst Dr Willoughby was
 23 still the consultant in charge of the service, and
 24 leaving aside what he did or didn't know about AIDS,
 25 what, if any, steps were taken or how were the risks

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1 Q. Was any consideration given to a significantly
 2 increased use of cryoprecipitate?
 3 A. For home treatment?
 4 Q. Either for home treatment or in hospital.
 5 A. I think the use of cryoprecipitate was as outlined in
 6 the policy that Dr Hann instituted at the time.
 7 Q. So in terms of home treatment, was there any
 8 consideration as far as you can recall, given to using
 9 cryoprecipitate for home treatment?
 10 A. Not on a general basis, no. As I say, there was two
 11 patients or two situations where cryo was used, but it
 12 wasn't given as home treatment.
 13 Q. Can I come on then to ask you about the circumstances
 14 in which it was learnt at Yorkhill that a significant
 15 number of the children had been infected with
 16 HTLV-III. Your evidence to the Penrose Inquiry was
 17 that testing was carried out by a Dr Follett of the
 18 regional virology lab on stored serum samples; is that
 19 right?
 20 A. That's correct.
 21 Q. Now just dealing with the question of the samples
 22 first of all, do I correctly understand your evidence
 23 to Penrose to have been that you weren't aware that
 24 samples were being stored?
 25 A. That's correct but, again, listening to evidence given

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1 of infection with hepatitis reflected in the treatment
 2 policies at Yorkhill under Dr Willoughby?
 3 A. Well, again, reading Dr Hann's statement and his
 4 record of what Dr Willoughby had said to him,
 5 Dr Willoughby's opinion was that the question of
 6 transmission of hepatitis through commercial products
 7 had been partly addressed by improved donor selection
 8 and screening. So I would have to say I don't think
 9 there was any steps taken -- sorry, could you just
 10 repeat the original question?
 11 Q. Yes, of course. It was a slightly convoluted
 12 question.
 13 Under Dr Willoughby, what, if any, steps were
 14 taken to reduce or minimise the risk of patients being
 15 infected with a virus, whatever that virus might be?
 16 A. Well, as I've just said, you know, his opinion about
 17 the reduced risk of or the evolving reduced risk of
 18 hepatitis, so there wouldn't have been any particular
 19 steps taken I don't think.
 20 Q. In relation to the time from 1983 onwards under
 21 Dr Hann you have referred to the change to SNBTS
 22 product and to a reduction in prophylaxis. Was any
 23 consideration given, as far as you can recall, to
 24 stopping home treatment?
 25 A. No.

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1 by clinicians, I wasn't aware that it seemed to have
 2 been accepted practice in virology departments at that
 3 time.
 4 Q. Did you or the sister or Dr Willoughby ever arrange
 5 for samples to be stored of patients' sera?
 6 A. Neither Sister Murphy or I or Sister Wright would have
 7 arranged for samples to be stored. I do not know if
 8 samples were stored in the haematology lab but I don't
 9 think so. I wasn't aware of any.
 10 Q. If you and the haemophilia sisters were not aware of
 11 samples being stored, whether in the haematology lab
 12 or in virology, would it follow logically that the
 13 patients or their parents are unlikely to have been
 14 aware that that was the practice?
 15 A. I think they are unlikely to have been aware that that
 16 was the practice, yes.
 17 Q. As far as you understand, the testing that was
 18 undertaken by Dr Follett was testing in which the
 19 parents were unaware at the time?
 20 A. Yes. And, as far as I recall, certainly I was unaware
 21 of it and I think Dr Hann was unaware of it.
 22 Q. Do you know anything about what led Dr Follett to
 23 undertake this testing?
 24 A. No, I don't.
 25 Q. How did you learn the results of the tests?

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

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

14 A. Yes, I did.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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1 parents at the next routine haemophilia clinic.

2 **Q.** Bearing in mind what you told us about the dates when

3 you were off on maternity leave, Dr Pettigrew, does it

4 follow that the process of telling parents the results

5 is probably a process that began in May 1985?

6 **A.** Yes. I think it would begin -- as I say, I think

7 I probably sent that letter fairly promptly after we'd

8 received the results. So the process of telling the

9 parents would have begun, you know, well straight

10 after receiving that letter, yes, or my seeing that

11 letter.

12 **Q.** The letter that we looked at, and again I'm not asking

13 you about the individual patient, but the that letter

14 we looked at is you telling another clinician --

15 **A.** The result.

16 **Q.** -- the result. Would the parent, by that stage, have

17 been told or was the purpose of sending the letter so

18 that the local clinician would provide the diagnosis

19 to the parent?

20 **A.** The local clinician would be the clinician responsible

21 for looking after that boy. We didn't have any --

22 I don't think it would have been normal practice at

23 that time for us to write directly to the parents. It

24 would be the responsibility of the clinician who was

25 caring for the child at the time to -- and that's why

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1 we go to page 98 using the internal pagination,

2 Soumik, so I think it might be something like

3 page 109.

4 Under the heading "Royal Hospital for Sick

5 Children Yorkhill", paragraph 3.284, it says:

6 "Dr Elizabeth Chalmers, Director of the

7 Haemophilia Centre at the Royal Hospital for Sick

8 Children, Yorkhill, Glasgow, provided evidence that

9 21 children were infected with HIV as a result of

10 their treatment at the Royal Hospital for Sick

11 Children. All 21 children had Haemophilia A (19 had

12 severe haemophilia and two had moderate haemophilia)."

13 Then in the next paragraph it goes on to say

14 that all the children received both SNBTS and

15 commercial product, in particular Factorate:

16 "For 12 of the 21 children, the date of the

17 last negative and first positive HIV tests are known.

18 Two of the 12 children seroconverted between

19 January 1980 and January 1981, one child seroconverted

20 in 1981, three children seroconverted in 1981-82, four

21 children seroconverted in 1982-83, one child

22 seroconverted between 1981-1983 and one child

23 seroconverted between 1982-84. For nine of the 21,

24 the date of the last negative test for HIV is not

25 known."

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1 I left it in terms "appropriate action", because

2 obviously I couldn't dictate to a consultant what

3 action he should take, but I assume that he would

4 appreciate the steps that would have to be taken and,

5 as I say, we didn't have an address and I don't think

6 we would have written to the parents. I think we

7 would have done it through that process of informing

8 the consultant in charge of the patient's care --

9 **Q.** So patients --

10 **A.** -- at the time. Sorry.

11 **Q.** So patients who were being treated at other hospitals

12 now you would notify the treating clinician. In

13 relation to any patients of yours who had by that time

14 transferred to the care of the Royal Infirmary in

15 Glasgow, was it the same arrangement, that the results

16 would be notified to Dr Forbes or Dr Lowe or who

17 whoever it might have been?

18 **A.** I presume they probably had tested those patients

19 anyway. We did inform them of the results, yes.

20 **Q.** So the parents who you were telling were the parents

21 of the children who were still being treated at

22 Yorkhill?

23 **A.** And I think the number was 10 or 11.

24 **Q.** Just look at the Penrose Report, in terms of the

25 overall numbers. PRSE0007002, please, Soumik. Could

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1 If we go to the next page, please, Soumik, we

2 can see a table, table 3.18 which sets out the

3 21 children referred to here as Y1 through to Y21,

4 dates of the last negative sample, first positive, and

5 so on.

6 Your recollection of there being, perhaps,

7 around ten or so children does that reflect that was

8 the number of children, as far as you can recall, that

9 you had to tell because they were still being treated

10 at Yorkhill at the time?

11 **A.** Yes, that's correct. There's something about that

12 table that I'm not quite understanding. If you look

13 at Y7, Y7 first positive was 15/5/85. I'm not sure if

14 that -- well, I presume that must have been in the

15 letter that we got from Dr Follett but it's quite late

16 in the scheme of things. So I'm just pointing that

17 out that I'm not sure about what the situation is

18 there.

19 **Q.** Okay, thank you.

20 **SIR BRIAN LANGSTAFF:** There's another one, Y1.

21 **A.** That's April.

22 **SIR BRIAN LANGSTAFF:** Yes. So one's April, one's May.

23 They are both late, if you think about it that way.

24 **A.** Well, yes but for a first positive to be discovered in

25 15/5/85, and there's one ... there's other ones in

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1 January '85, first positives. It was just something,
 2 when I looked at that, it puzzled me a wee bit.
 3 **SIR BRIAN LANGSTAFF:** It might suggest that the testing --
 4 if all 21 were tested at the same time, the samples
 5 were tested at the same time, testing must have taken
 6 place after 15 May 1985.
 7 **A.** Up until 15 May 1985, yes.
 8 **SIR BRIAN LANGSTAFF:** The testing must have been after,
 9 because the first positive test is that date, and this
 10 is looking back on samples.
 11 **A.** Yes, but that --
 12 **SIR BRIAN LANGSTAFF:** So they would have been on the 15th
 13 or earlier.
 14 **A.** Yes, that would have been tested on 15 May 1985.
 15 **SIR BRIAN LANGSTAFF:** So I think not tested on that date
 16 but a sample taken on that date, surely?
 17 **A.** Yes, but that -- that date was --
 18 **SIR BRIAN LANGSTAFF:** Let me tell you, I may be wrong, but
 19 the way that I'm looking at it at the moment is that
 20 the -- this is somebody who's got a vial in front of
 21 him containing a sample, the sample is dated, because
 22 it's the date the sample was taken. A number of
 23 different samples will have been taken over time from
 24 each patient, and so each patient may have, let's say,
 25 ten samples. He checks to see which -- if the latest

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1 **A.** Yes, I think you're quite right, Sir Brian. I just --
 2 that first positive on 15 May 1985 is relatively late.
 3 **SIR BRIAN LANGSTAFF:** It is, yes.
 4 **A.** Sorry, it was just something I noticed.
 5 **MS RICHARDS:** Could we look at PRSE0002066, which is the
 6 note of a meeting of haemophilia directors and SNBTS
 7 representatives on 29 November 1984.
 8 So you will see the date at the top of the
 9 page, Dr Pettigrew, and we can see that Dr Gibson
 10 attended. Is it fair to assume that Dr Gibson was the
 11 representative of the Royal Hospital for Sick Children
 12 at this meeting?
 13 **A.** She would be.
 14 **Q.** If we look at the bottom the page, paragraph 5, we can
 15 see it's being said:
 16 "Dr Gibson reported the anxiety felt by parents
 17 of haemophiliac children treated at RHSC Glasgow,
 18 where imported Factor VIII had been used until
 19 relatively recently. Five out of 10 of these patients
 20 were HTLV-III antibody positive."
 21 Now this would tend to suggest that by the end
 22 of November 1984, ten patients had been tested and
 23 five found to be HTLV-III positive. This is before
 24 the period where you went off on maternity leave.
 25 Can you recall anything about that or the

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1 sample shows that they are positive. If they are
 2 negative there's not a problem. If he does discover
 3 that that is positive, he needs to go back to see
 4 whether earlier samples also show positivity. So he
 5 works his way back through, in the hypothesis I've
 6 taken ten samples, to see the previous samples and
 7 eventually comes to the earliest in which he has
 8 a negative.
 9 **A.** Yes.
 10 **SIR BRIAN LANGSTAFF:** That's the process which I imagine
 11 in my mind was going on but I may be wrong about that.
 12 Does that coincide with your concept?
 13 **A.** I think that is what happened.
 14 **SIR BRIAN LANGSTAFF:** So it must then follow that all of
 15 the 21, our 21 who tested positive at some time, they
 16 must all have been first positive before the date of
 17 the testing done by Dr Follett, and that would suggest
 18 to me at the moment, from this table, that the testing
 19 probably took place at the earliest on 15 May 1985.
 20 It can't have been earlier than that because otherwise
 21 why would you get these later first positives coming
 22 in? By definition, everyone on the list has been
 23 positive on a test sometime in '84/'85 -- '85 it must
 24 be -- and then you look back and see when first.
 25 Isn't that how it would work?

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1 arrangements that were made at that earlier stage for
 2 testing?
 3 **A.** No. I was also asked about this in the course of the
 4 Penrose Inquiry and I don't recall anything about that
 5 and I don't know where those figures came from.
 6 **Q.** So is this right: your first recollection of learning
 7 that some of the children you had been treating were
 8 HTLV-III positive was later on in 1985, as you have
 9 already discussed, in May of 1985?
 10 **A.** Yes, it would be.
 11 **Q.** As I understand it, in terms of the arrangements for
 12 telling the parents, you have described it as being
 13 either, if they came in opportunistically, i.e.
 14 without a scheduled regular appointment, the
 15 opportunity would be taken to tell them, or as and
 16 when they came in for their next routine appointment
 17 in the clinic that by this time had been established
 18 by Dr Hann.
 19 Does it follow that they would have had no
 20 advanced notice or preparation for the news that was
 21 going to be broken to them because they didn't even
 22 know their child had been tested?
 23 **A.** I think that's fair. I think there was a high index
 24 of suspicion amongst them that their child would be at
 25 risk of being infected but certainly they wouldn't

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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

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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

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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.

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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

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1 care as well at the time.
 2 **SIR BRIAN LANGSTAFF:** And you have thought about it,
 3 I suspect, a lot since.
 4 **A.** Absolutely. I knew that some of these children had
 5 died and it was just an awful, awful, awful tragedy.
 6 **SIR BRIAN LANGSTAFF:** We will take a break there, I think,
 7 and take a break until 2.05.
 8 **(1.04 pm)**
 9 **(Luncheon Adjournment)**
 10 **(2.04 pm)**
 11 **MS RICHARDS:** Dr Pettigrew, you were telling us before
 12 lunch about the process of telling parents, in
 13 particular mothers, about their child's diagnosis.
 14 What, if any, arrangements were made by Yorkhill for
 15 the children themselves, subject, obviously, to their
 16 age, to be told of their diagnosis?
 17 **A.** Ms Richards, do you mind before I answer that if
 18 I could add something that I haven't given in my
 19 earlier responses, and I apologise.
 20 The first thing was, when you asked about what
 21 steps were taken to reduce the risk after 1983, when
 22 Dr Hann came, I omitted to mention obviously the use
 23 of DDAVP in situations where it was appropriate, and
 24 probably less important but I think I should mention
 25 other lifestyle advice was things like no

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1 **Q.** Were there children who -- child patients who you told
 2 their diagnosis to or did parents tend to do it
 3 themselves?
 4 **A.** I think parents tended to do it themselves. And
 5 I cannot say with any absolute certainty that I didn't
 6 tell some of the children but I think on the whole
 7 parents tended to tell the child themselves and choose
 8 when they told the child or when the child was told.
 9 **Q.** I think you are aware that when Dr Mark Winter gave
 10 evidence on the issue of whether to tell children
 11 their diagnosis, he referred to having had some form
 12 of dialogue with a group of Scottish clinicians who
 13 didn't favour the child being told their diagnosis.
 14 Do you have any knowledge of that?
 15 **A.** No, but I heard Dr Winter's evidence and I checked
 16 Dr Hann's evidence, and I think the meeting was quoted
 17 as a UKHCDO meeting in 1984. Dr Hann was not at that
 18 meeting and I think he was asked in his oral evidence
 19 to Penrose about policy, and I don't think -- I'm
 20 pretty confident it wasn't our Scottish group that was
 21 at that meeting.
 22 **Q.** If we could have up on screen, WITN3527003, please
 23 Soumik.
 24 This is a letter from the GMC. I'm not asking
 25 you anything about the details of the issue being

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1 intra-muscular injection, no aspirin, regular dental
 2 care, to ensure that the muscles around the joints
 3 were kept in good condition by appropriate exercise.
 4 So I do apologise.
 5 You were asking about arrangements to tell the
 6 children?
 7 **Q.** Yes.
 8 **A.** Well, the sort of practice in those days was that the
 9 parents would be told first. I think I mentioned in
 10 my Penrose statement, and possibly this was before the
 11 1985 or 1988 Children (Scotland) Act and the
 12 1991 Children's Capacity Act, and the parents were
 13 then asked whether they would like to tell the
 14 children or if they would like us to tell the
 15 children, either with them present or not.
 16 We recommended particularly that the older
 17 children be told, because obviously some of them would
 18 be approaching puberty and then there would be other
 19 issues that were important to discuss, like sexual
 20 transmission. So that was the basic -- the policy at
 21 the time.
 22 **Q.** And --
 23 **A.** (Inaudible) -- sorry, for, you know, children who were
 24 being treated for other haematological diseases such
 25 as leukaemia.

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1 considered in terms of the individual patient or the
 2 process. There's just one thing I wanted to ask you
 3 about, Dr Pettigrew. It's in the last paragraph on
 4 this page where it said by reference to an HTLV-III
 5 result:
 6 "The result was found as part of a research
 7 project and Dr Pettigrew was passing on information in
 8 order that a clinician could 'arrange for appropriate
 9 measures to be taken'.
 10 Can you assist us there with the
 11 reference to it being a "research project" which
 12 revealed the HTLV-III results?
 13 **A.** I have to admit I hadn't -- I think I was just so
 14 relieved when I got that letter, after the case took
 15 two years to resolve at the time, I didn't really
 16 notice or take full cognisance of that phrase there.
 17 And I was reading it obviously in preparation for
 18 today and I thought that's not correct. It wasn't
 19 a research project. I think they must have
 20 misunderstood.
 21 There was certainly nothing in the letter that
 22 was sent on my behalf by the MDDUS, there was no
 23 reference to a research project.
 24 **Q.** Can I just ask you a little about the benefits of the
 25 social work input that Yorkhill had at this time.

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1 Social worker Christina Leitch had joined Yorkhill
 2 I think in the autumn of 1984. To what extent was her
 3 involvement an important aspect of the support for
 4 parents and children?
 5 **A.** I think Mrs Leitch's involvement was pivotal. I mean,
 6 it was very, very important. Because she was somebody
 7 that was not directly -- well, she was part of the
 8 haemophilia team, although she wasn't a haemophilia
 9 social worker, but she was outwith the clinical area
 10 of treating patients with haemophilia, and I think her
 11 input was very important because certainly the parents
 12 could discuss issues with her which they may not have
 13 liked to discuss with us. They could express their
 14 emotions there -- their anger, their concerns, their
 15 own difficulties -- with her that they may not have
 16 expressed with us. And I think it was very important.
 17 And I noticed in her statement to the
 18 Penrose Inquiry, she said that the medical staff were
 19 reluctant for her to set up parent support groups and
 20 that certainly wasn't my opinion. I was very grateful
 21 that she was able to do that.
 22 **Q.** In terms of the arrangements that were made for the
 23 treatment of children infected with HIV, your
 24 statement explains that they would be referred to the
 25 infectious disease unit, and I may pronounce this

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1 also took the blood for them, on the advice of
 2 Ruchill, for the CD4:CD8 lymphocyte ratios, and would
 3 inform probably I think it was Dr Kennedy at the time
 4 of those results and we would take their advice on any
 5 action that needed to be taken.
 6 **Q.** At what point in the development of the boys'
 7 condition would they actually be attending the
 8 infectious diseases unit and receiving treatment
 9 there?
 10 **A.** I'm not sure -- I know that they did attend infectious
 11 disease unit at the clinic there but I couldn't tell
 12 you exactly when in their condition. I know certainly
 13 by the time that any of the boys were commenced on any
 14 form of treatment they had been attending a clinic at
 15 Ruchill.
 16 **Q.** Do you know what, if any, efforts were made to
 17 minimise the potentially very negative effects of
 18 children with HIV having to attend Ruchill for
 19 treatment and be exposed there to very ill patients
 20 and IV drug users and so on?
 21 **A.** Well, I think we tried to monitor and look after them
 22 as far as we could in Yorkhill, and I can't really
 23 speak for what measures would be taken in Ruchill to
 24 try to minimise their contact with not only very ill
 25 patients but also some perhaps difficult patients,

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1 wrong, Ruchill hospital?
 2 **A.** Ruchill Hospital.
 3 **Q.** For continued monitoring. What were the arrangements
 4 as between Yorkhill and the infectious diseases unit?
 5 **A.** Well, as far as the care of patients with haemophilia
 6 who were HTLV-III positive, there was a very close
 7 liaison between the two units. And also Ruchill did
 8 have paediatric patients -- I think I've said that in
 9 my statement -- you know, children were admitted to
 10 Ruchill with infectious diseases. But we liaised
 11 closely with the infectious disease specialist at
 12 Ruchill because they had experience of treating
 13 patients with AIDS, even at that time, because there
 14 was a number of members of the gay community, and also
 15 at that time in Glasgow there was quite a problem with
 16 people who inject drugs. So they had, relatively,
 17 a lot of -- well, certainly more experience, and
 18 relatively a lot of experience, of treating patients
 19 with AIDS. So we liaised with them and we cared
 20 probably on a sort of joint basis for the patients.
 21 **Q.** What was the division of responsibility between
 22 Yorkhill and Ruchill?
 23 **A.** Ruchill would give advice on any treatment for AIDS.
 24 Initially at Yorkhill we would monitor the boys for
 25 any symptoms of any AIDS-related disorder. I think we

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1 considering the group involved who were people who
 2 were injecting drugs.
 3 **Q.** Do you know whether any representations, for example,
 4 were made by Yorkhill to Ruchill to see whether there
 5 could be some kind of separate arrangements or
 6 separate clinics or attendances for the Yorkhill
 7 children?
 8 **A.** I don't know of any such arrangements but, as I said,
 9 I know that Ruchill were used to dealing with children
 10 who were admitted there with infectious diseases.
 11 **Q.** You've referred in your statement to the stigma
 12 associated with HIV at this time, including from
 13 hospital staff themselves. Could you perhaps
 14 elaborate upon that, please.
 15 **A.** Well, I think the thing that springs to mind there is
 16 an announcement by -- before any of our patients were
 17 found to be positive with the virus, an announcement
 18 by the porters that under no circumstances would they
 19 either transport in a wheelchair or a trolley patients
 20 who were known to have the AIDS virus in the -- they
 21 wouldn't transport them in the hospital, whether that
 22 would be for X-ray or whatever, and on no account
 23 would they transport any deceased patient.
 24 Also you're aware that -- from witness
 25 statements of the way that patients were -- our boys

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(24) Pages 93 - 96

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

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

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

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

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

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

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

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

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

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

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

25 I asked you whether parents were given a choice

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

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

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

5 **A.** I think you could probably say that because I don't
6 think there was any policy to wholesalely -- to
7 change everybody who was on home treatment to
8 cryoprecipitate.

9 **Q.** Why was that not offered to every parent?

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

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

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

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

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1 told parents that it was indeed likely that AIDS was
2 transmissible by concentrates?
3 **A.** I think there probably was a time that we would have
4 to tell them that. I can't give you -- you know,
5 I can't recall, actually, occasions where I said that
6 but, you know, as I said, we gave them information on
7 the knowledge that we had at the time and, obviously
8 as time went on, it was obvious that AIDS was
9 transmitted via virus, particularly through
10 concentrates, particularly through commercial
11 concentrates.
12 **Q.** But, is this right, you are not able to tell us when
13 that time was reached?
14 **A.** No, as I say, I can't remember specific conversations.
15 **Q.** Did there come a time when parents who expressed their
16 concerns to you or asked you about AIDS were told in
17 terms that if their child were to be infected and
18 developed AIDS the prospects were that their child
19 might die?
20 **A.** Well, initially -- obviously, when we told them
21 initially about being HTLV-III positive, I had to
22 indicate that, at that point, we didn't know how many
23 of those patients who were HTLV-III would go on to
24 develop AIDS and I think it was well-known, it was
25 common knowledge then, I think, that patients with

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1 initiative -- well, not an initiative but a health
2 board funded project.
3 **Q.** What about the nursing sister position within the
4 haematology service, do you know that was funded?
5 **A.** Yes, that was funded, again, through the hospital.
6 She was an employee of the hospital, and I have to say
7 well supported by nursing management when it came to
8 nursing management informing her of any appropriate
9 meetings there were for nursing professionals involved
10 in patients with -- who were HTLV-III positive.
11 **Q.** You referred earlier to a leukaemia junior research
12 fellow, do you know how that individual's position was
13 funded?
14 **A.** I presume the Leukaemia Research Fund.
15 **Q.** Do you know what kind of research they were doing?
16 **A.** Well, all the patients who -- all the children who
17 were being treated for leukaemia were treated
18 according to the national leukaemia trials. So UKALL,
19 UK Acute Lymphatic Leukaemia trials, which set out the
20 treatment at the time and then the treatment was
21 modified depending on success of that treatment. So
22 when I say research, they were really involved in the
23 care of the children with leukaemia but those children
24 would be part of UKALL trials.
25 **Q.** You have told us that you were aware of, in 1980 and

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1 AIDS tended to die. Probably, we would have said, you
2 know, at that point, "And if your child develops AIDS
3 they are going to die", I don't think we would have
4 said it at that point.
5 **Q.** Can you recall when the practice of marking samples,
6 serum samples, as high risk was introduced at
7 Yorkhill?
8 **A.** Well, I know it was a practice when I was working at
9 the Royal and probably before that at the Western that
10 if you suspected that patients were at the risk of, in
11 those days, hepatitis B, particularly, they were
12 marked as high risk. So all specimens from patients
13 with haemophilia who had received blood products would
14 be marked as high risk.
15 That policy ceased when it was considered that
16 all specimens should be considered high risk, later
17 on.
18 **Q.** Then I want to go and ask back to the question of the
19 facilities at Yorkhill. How was the move to the new
20 facility from the initial unit that you described
21 funded?
22 **A.** I think probably Dr Hann would have a better idea, but
23 I think it was funded through, you know, the health
24 board. It wasn't funded through donations or
25 whatever. It was -- I think it was a health board

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1 parents would have been told about, the risks of
2 hepatitis B. What was your understanding of those
3 risks in 1980 and the early 1980s, and what did you
4 say to parents about the hepatitis B risk?
5 **A.** Well, obviously, I was aware of hepatitis B because it
6 was something that, you know, I would have learned
7 about as an undergraduate and a postgraduate in
8 preparation of my MRCP exam. Parents were told that
9 all blood products carried a risk of being infected
10 with hepatitis B and, even after screening, the
11 screening was not always -- that didn't always pick up
12 every case of hepatitis B, and that there was a risk
13 and, obviously, hepatitis B could in some cases be
14 a very serious and occasionally fatal illness. That's
15 why we monitored them for their hepatitis B status.
16 I also knew that some patients could become
17 carriers without developing the illness.
18 **Q.** Was there any kind of system or systematic approach
19 for explaining to parents whose children were going to
20 go on to prophylactic home treatment what the risks
21 were?
22 **A.** I don't -- risks of hepatitis B?
23 **Q.** No, sorry, more generally, what the risks of
24 prophylactic home treatment were?
25 **A.** I don't think there was any systematic -- there

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1 wasn't -- no there wasn't, as far as I -- well, there
 2 wasn't a policy in place.
 3 Q. In terms of such parents to whom you would have been
 4 introducing home treatment after 1980, can you recall
 5 if it was your practice to tell them about the
 6 possible risks of developing inhibitors from
 7 prophylactic treatment?
 8 A. I think we would have advised them about that and that
 9 we would monitor for that. I don't think -- I'm not
 10 sure if any of our patients did -- we might've had
 11 possibly one patient that developed an inhibitor but
 12 in Yorkhill we were fortunate that we didn't really
 13 have a problem with patients developing inhibitors.
 14 Q. Were parents told that prophylactic treatment was
 15 something new and unusual and different from what was
 16 being done at other centres?
 17 A. I don't know if they were and I'm not -- I knew it
 18 wasn't -- well, when I came to Yorkhill there wasn't
 19 a home treatment at the Royal, so I wasn't aware
 20 whether it was unusual or not and, as I say,
 21 Dr Willoughby introduced it after reading papers
 22 published by haematologists elsewhere.
 23 Q. You told us that young, very young, patients and
 24 patients who hadn't previously been treated with
 25 concentrates would be likely to have received

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1 "Oh, you know, when I was working at the Royal we were
 2 checking liver function tests, and, you know, do you
 3 mind if I check them in our patients?"
 4 Q. So until your arrival that wasn't being done at
 5 Yorkhill?
 6 A. I don't think it was being done, no.
 7 Q. What would you -- what did you tell parents about the
 8 liver function tests and in particular the results and
 9 the levels?
 10 A. Well, as I said, when I was taking the blood, I would
 11 say, you know, we're checking for your hepatitis your
 12 Factor VIII levels your blood count and for liver
 13 function tests, because we know that some patients
 14 with haemophilia have slightly abnormal liver function
 15 tests and we would like to just keep an eye on that.
 16 As I say, I can't recall any of our patients
 17 having liver function tests that were abnormal to
 18 a degree that one would have concern and it may be
 19 that it was intermittent and we might have missed
 20 abnormal liver function tests.
 21 Q. I am conscious you didn't have very many
 22 von Willebrand's disease patients, perhaps only one at
 23 the beginning of your time at Yorkhill. Were the ALT
 24 levels of von Willebrand's patients also measured?
 25 A. I suppose if we were checking routine bloods in

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1 cryoprecipitate if they came to the hospital for
 2 treatment. Was the reason for that because
 3 cryoprecipitate was believed to be safer for such
 4 patients?
 5 A. I would have to say, in Dr Willoughby's day I would
 6 have to presume it was, in Dr Hann's day it certainly
 7 was. So, you know, I can't speak for -- because
 8 Dr Willoughby, as we see from his statement, although
 9 he knew there was an increased risk from concentrate,
 10 I don't know if -- I think part of it was that in the
 11 very young children cryoprecipitate was in a smaller
 12 volume and so it could be used rather more easily than
 13 larger volumes in other children.
 14 Q. So is this right, you are telling us you don't know
 15 what Dr Willoughby's rationale would necessarily have
 16 been but you --
 17 A. I don't.
 18 Q. -- but insofar as Dr Hann's was concerned, you
 19 understood it was because cryoprecipitate was safer?
 20 A. Yes.
 21 Q. In terms of liver function tests, when did you first
 22 become involved in testing patients' liver function?
 23 A. I think probably not long after -- well, when
 24 I arrived at Yorkhill, probably not long after and
 25 I think I probably would have said to Dr Willoughby,

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1 von Willebrand's patients, as it was part of our
 2 normal procedure, we would have checked liver function
 3 tests as well.
 4 Q. You've referred when I was asking you about Ruchill
 5 Hospital to knowledge of there being an IV drug user
 6 community in Glasgow. When did you become aware of
 7 the problem of AIDS amongst needle-sharing IV drug
 8 users in Glasgow?
 9 A. Well, I think it probably would be in '84 some time.
 10 I couldn't tell you exactly but I think it was
 11 something that was quite well publicised.
 12 Q. Moving on to 1985, in the period from 1985 to,
 13 I think, the spring of 1987 the factor concentrate
 14 that you were using for the treatment of patients
 15 would, as I understand it, have been the SNBTS
 16 heat-treated product, NY; is that right?
 17 A. Yes, that's correct.
 18 Q. Now, that was understood to eradicate HTLV-III but not
 19 non-A, non-B hepatitis. Was that your understanding?
 20 A. Yes, that's correct, yes.
 21 Q. So the children would still have been at risk of being
 22 infected with non-A, non-B hepatitis during that
 23 period?
 24 A. Yes, but, as you know, the consensus of opinion is
 25 that patients who are infected with non-A, non-B

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

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

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

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

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

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

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

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

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

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

24 A. No, I didn't.

25 Q. Were you ever contacted about any fatal accident

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1 to the availability of heat-treated Factor IX
 2 concentrates?

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

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

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

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

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

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

3 A. No, I wasn't.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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1 **A.** Thank you, Sir Brian.
2 (2.43 pm)

3 **(A short break).**

4 **(3.10 pm)**

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

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

11 **A.** Okay, I'm here.

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

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

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

23 **A.** No, I wasn't.

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

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

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

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

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

5 **A.** Armour funded me to go to the World Federation of
6 Haemophilia meeting. Both Dr Hann and I went, in
7 1984, to the World Federation of Haemophilia meeting,
8 which was in Brazil, in Rio de Janeiro.

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

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

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

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

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

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

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1 of Haemophilia meetings, no. I don't know about any
 2 other meetings which might have been funded.
 3 **Q.** Can we just look again at the table about product use.
 4 Soumik, it's INQY0000242.
 5 If we look at table 2, at the bottom of the
 6 page, which looks at PFC versus commercial
 7 concentrate, we can see, as you referred to earlier,
 8 that in 1981, 1982, more PFC product was being used,
 9 proportionately, than had been the case in the
 10 previous two years.
 11 **A.** Yes.
 12 **Q.** Whilst Dr Willoughby was still consultant.
 13 Do you know whether that was because of --
 14 whether his increased use of the Edinburgh PFC
 15 concentrate was because of safety concerns?
 16 **A.** I couldn't answer that question. I thought it was
 17 probably because there were more supplies of PFC but
 18 I couldn't answer that with certainty.
 19 **Q.** Do you have any recollection -- that can come down,
 20 Soumik.
 21 Do you have any recollection of the boys at
 22 Yorkhill being involved in a video project in about
 23 1986 in which they were asked questions about
 24 HIV infection?
 25 **A.** Could you repeat the question, please.

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1 about the precautions to be taken in the case of any
 2 blood spillage or cuts to prevent transmission of
 3 hepatitis. We didn't mention prevention of AIDS
 4 because obviously we wouldn't have told the school
 5 that the child had been infected with HIV virus. But
 6 it was common for us to do school visits for those
 7 purposes that I mentioned, with the parents'
 8 permission.
 9 **Q.** In the course of those school visits was the issue of
 10 the stigma associated with HIV ever raised?
 11 **A.** Not that I recall.
 12 **Q.** Finally, Dr Pettigrew, was there in the first half of
 13 the 1980s at Yorkhill any process or system or forum
 14 for, as it were, whistle-blowing or raising concerns,
 15 as a junior clinician, about the policies that were in
 16 place or any concerns about risks?
 17 **A.** No, there weren't, but I have to say -- I know we can
 18 look back in retrospect and see that there were
 19 possibly things could have been done differently but
 20 I did have a great respect for Dr Willoughby and he
 21 was held in high regard.
 22 **MS RICHARDS:** Sir, those are the questions I have for
 23 Dr Pettigrew. I don't know whether Mr Bowie has any
 24 or whether you have any?
 25 **SIR BRIAN LANGSTAFF:** Shall we ask Mr Bowie first.

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1 **Q.** Do you have any recollection of boys at Yorkhill being
 2 involved in a video project in around 1986 in which
 3 they were asked questions and filmed answering about
 4 their infection with HIV?
 5 **A.** I don't know if you are referring to the study that
 6 was done by Professor Parry-Jones' department.
 7 **Q.** I'm simply asking a question that has been asked of me
 8 by a recognised legal representative. So do you have
 9 any recollection yourself of any such project?
 10 **A.** I know there was a project -- we had approached the
 11 Department of Child and [Family] Psychiatry to see
 12 if we could get help from a psychologist to see these
 13 boys, and they -- Professor Parry-Jones thought it
 14 would be better to set up a project to assess whether
 15 there was a need for psychological intervention, and
 16 possibly as part of that the boys were videoed, but
 17 I wasn't involved in the actual -- so I couldn't say
 18 if that was the case or not.
 19 **Q.** I understand it to be the case that you visited
 20 schools to talk about the stigma of HIV. Is that
 21 right?
 22 **A.** No, we visited schools to advise them about --
 23 Sister Murphy and I or Sister Murphy on her own -- not
 24 to talk about the stigma of HIV but to talk about
 25 haemophilia in general, and also to advise schools

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1 Mr Bowie?
 2 **MR BOWIE:** Thank you, sir, there are no questions that
 3 I would like to ask.
 4 **Questions by SIR BRIAN LANGSTAFF**
 5 **SIR BRIAN LANGSTAFF:** Thank you, I do have some, so if
 6 what I have to ask raises any further questions from
 7 you, Mr Bowie, I would be quite happy to entertain
 8 your asking them then but thank you for the moment.
 9 Can we have Dr Pettigrew back, please?
 10 **MS RICHARDS:** Dr Pettigrew needs to say something again.
 11 **A.** Yes, I'm here, sorry.
 12 **SIR BRIAN LANGSTAFF:** You ended that evidence just talking
 13 about Dr Willoughby and, towards the end of this
 14 morning's session or this afternoon's session,
 15 I think, you said that he did what he did in good
 16 faith without being fully aware or without realising
 17 the severity of the potential risks.
 18 **A.** I think, with respect to that, he was not aware of the
 19 risks of HIV at the time and if I, again, from what
 20 Dr Hann quoted in his evidence to Penrose of
 21 a discussion he had with Dr Willoughby, Dr Willoughby
 22 told Dr Hann that he didn't think that non-A, non-B
 23 hepatitis was a serious condition.
 24 **SIR BRIAN LANGSTAFF:** Was it, would you say, part of his
 25 job to be as fully aware, as reasonably could be

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1 expected, of the risks and the potential severity of
 2 those risks?
 3 **A.** Yes, I'm sure it was, but I think, Sir Brian -- well,
 4 there was quite a lot of debate among haemophilia
 5 clinicians --
 6 **SIR BRIAN LANGSTAFF:** It was his job, essentially, is what
 7 you said. Unless he was aware, how would you expect
 8 junior members of staff and, for that matter, nurses
 9 and others working under him, to be aware?
 10 **A.** If he wasn't aware no, you wouldn't expect members of
 11 staff working under him to be aware, no.
 12 **SIR BRIAN LANGSTAFF:** So does that mean that a junior
 13 doctor, for instance, would have no expectation that
 14 they would themselves keep themselves up-to-date?
 15 **A.** I think -- you know, this is something I ask myself
 16 what steps particularly in the early '80s did I take
 17 to keep up-to-date but, as I say, I think the sort of
 18 job I was in didn't lend itself to having time to read
 19 papers and you were very much dependent on information
 20 that was passed down from seniors.
 21 **SIR BRIAN LANGSTAFF:** That brings me really to something
 22 else that you said earlier in your witness statement.
 23 Soumik, could we have back witness statement 3527002
 24 and go to page 16. It's paragraph 37.
 25 Now, if we look at the middle paragraph there,

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1 knowledge, as you say, of the junior person would be
 2 dependent on that knowledge being passed on or that
 3 junior person finding out that knowledge for
 4 themselves and -- sorry, Sir Brian, can I go back to
 5 your original question?
 6 **SIR BRIAN LANGSTAFF:** Yes. It's about what you meant
 7 really by the state of knowledge. Whose knowledge?
 8 It's obviously knowledge more generally. You could
 9 only tell a patient what you knew, what your state of
 10 knowledge was but you're talking here more generally.
 11 **A.** Yes, and I think that refers to the fact that it was
 12 an evolving situation with regards to AIDS. I think,
 13 you know, again a parallel to the current Covid
 14 situation. The knowledge about Covid has increased
 15 over the last nine to 10, 12 -- nearly 12 months as
 16 we've learned before about it, and it was the same,
 17 I think, at that time. It was an evolving situation.
 18 It was an unprecedented situation and knowledge about
 19 the condition was accumulating all the time.
 20 **SIR BRIAN LANGSTAFF:** The expression "the state of
 21 knowledge", if you're right that it must, in this
 22 context, mean the knowledge by directors who derive
 23 their knowledge from the UKHCDO, that what one is
 24 looking at is the knowledge which the body of those
 25 who are said to be experts in haemophilia care ought

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1 you're talking about the policy about informing
 2 patients, there wasn't one, and then you say:
 3 "Initial discussions with parents ..."
 4 This is talking about HIV, I appreciate, but
 5 presumably the same would apply to non-A, non-B:
 6 "... were of the state of knowledge at the
 7 time ..."
 8 Can you help me with this: one of the questions
 9 that I'm going to have to answer at the end of this
 10 Inquiry is what I make of the state of knowledge. It
 11 might be the state of knowledge of an individual
 12 clinician but the way you are using those words there,
 13 you're talking about the state of knowledge generally,
 14 aren't you?
 15 **A.** I think both.
 16 **SIR BRIAN LANGSTAFF:** Well, how do I work out what was the
 17 state of knowledge generally, do you think?
 18 **A.** Well, that would -- well, I think the state of
 19 knowledge held by a consultant or director of
 20 a haemophilia unit who was attending HCDO meetings and
 21 being party to reports, the likes of him would have
 22 more knowledge and would be up-to-date with the state
 23 of knowledge at the time; for instance, would be
 24 up-to-date with the knowledge that patients with
 25 haemophilia had developed AIDS in 1983. The state of

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1 to have. Is that fair?
 2 **A.** I think that's fair, yes.
 3 **SIR BRIAN LANGSTAFF:** So that would depend, would it,
 4 then, on them disseminating that knowledge to everyone
 5 else in, if you like, the tree of care?
 6 **A.** Yes.
 7 **SIR BRIAN LANGSTAFF:** Because you could only tell the
 8 patient either what you had discovered independently,
 9 which I imagine if you did you'd want to check with
 10 someone else anyway, or what you have been told
 11 through this, as it were, chain of communication.
 12 **A.** I think that would be correct, yes.
 13 **SIR BRIAN LANGSTAFF:** So it would follow that, in general,
 14 there ought to be some system for continuing
 15 education/information to staff who are dealing with
 16 matters at a specialist level; would that be fair?
 17 **A.** Yes, and I think there was more discussion at that
 18 sort of level after 1983 in the department.
 19 **SIR BRIAN LANGSTAFF:** Yes. Before 1983 you told me there
 20 really weren't any meetings at which these sorts of
 21 matters were discussed, matters to discuss individual
 22 patients, that was about it. That's how I've
 23 understood your evidence.
 24 **A.** It's not so much in regard to haemophilia, no.
 25 **SIR BRIAN LANGSTAFF:** Yes. One of the matters which I've

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1 heard about from other clinicians is that there was
 2 a general lack of knowledge coming through from the
 3 UKHCDO about the discussions of those who were
 4 Reference Centre Directors at the heart of UKHCDO.
 5 The minutes weren't apparently circulated. That's
 6 what I've heard so far. If you're right, in order for
 7 advice to be given as to the state of knowledge that
 8 would have to be passed on, would it not?
 9 **A.** Yes, it would, yes.
 10 **SIR BRIAN LANGSTAFF:** You told us about how patients were
 11 making the running, in asking about the risks of AIDS,
 12 when they read in the papers -- which I suppose
 13 reflected one part of the state of knowledge but only
 14 a part and not a specialist part, necessarily -- what
 15 they'd read and what they understood and what they'd
 16 heard from The Haemophilia Society, which itself must
 17 depend upon the specialist advice of others, must it
 18 not?
 19 **A.** Yes.
 20 **SIR BRIAN LANGSTAFF:** They were coming to ask you about
 21 AIDS. None of them asked you about non-A, non-B
 22 hepatitis?
 23 **A.** Not that I can recall, no.
 24 **SIR BRIAN LANGSTAFF:** If you didn't know about non-A,
 25 non-B hepatitis, then they might be excused for not

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1 know, when I was taking blood for liver function tests
 2 I did say to the parents that, you know, in some cases
 3 these changes could progress to more severe liver
 4 disease.
 5 **SIR BRIAN LANGSTAFF:** Yes. Just going back to the
 6 question of information and knowledge, in the course
 7 of your evidence this morning, you mentioned it just
 8 in passing, I think, the name Montagnier, who, as we
 9 know, was the scientist who in May 1983 isolated the
 10 LAV virus, as he called it, which he thought was
 11 associated with the development of AIDS in some
 12 patients.
 13 When did you first become aware of that name,
 14 do you think?
 15 **A.** I couldn't honestly say. I think I was more familiar
 16 with the name Gallo and the finding of HTLV-III. So
 17 I don't think I was aware of the name Montagnier in
 18 1983. I might have become aware of that in 1984 after
 19 Gallo also discovered the HTLV-III virus.
 20 **SIR BRIAN LANGSTAFF:** So you think it wasn't until after
 21 the announcement of Gallo's discovery?
 22 **A.** I can't be absolutely certain, Sir Brian, because it
 23 was quite a while ago but it's my kind of feeling that
 24 that was probably the situation.
 25 **SIR BRIAN LANGSTAFF:** Yes. Thank you. The next thing

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1 knowing and not asking, I suppose.
 2 **A.** Well, I certainly didn't know about it before 1984.
 3 **SIR BRIAN LANGSTAFF:** Yes. It would follow that if the
 4 evidence, which I hear elsewhere, is to the effect
 5 that the state of knowledge as you've defined it, and
 6 if I accept that definition, of course, was that there
 7 was non-A, non-B hepatitis as a serious risk, that
 8 that was something that clearly should have been
 9 passed on to you and, if it had been, would you have
 10 raised it, do you think, with the patients? You
 11 hadn't raised the risk of AIDS directly. You waited
 12 for them, in effect, to ask you about it.
 13 **A.** Sir Brian, are you talking about before 1984 or after
 14 1984?
 15 **SIR BRIAN LANGSTAFF:** Any time before you knew.
 16 **A.** Any time before I knew, I obviously wouldn't have
 17 passed that risk on to the patients because I wasn't
 18 fully aware the risk myself.
 19 **SIR BRIAN LANGSTAFF:** That follows. It's a hypothetical
 20 question really, perhaps it's unfair to ask you but
 21 I will leave it there and we can deal with it in
 22 submissions generally. It's not a reflection in
 23 respect of you, it's just a reflection generally on
 24 the evidence that I've heard.
 25 **A.** You know, after 1984, as I've said already, that, you

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1 which I want to ask is completely different. Oh,
 2 before I pass away from knowledge, did anyone ever
 3 mention to you -- and this assumes that the
 4 information I have is correct, which is that Armour
 5 Pharmaceutical put in their data sheets, or in their
 6 leaflets accompanying the document, that in
 7 October 1983 that it was to be assumed that their
 8 products carried the risk of AIDS. Had no-one told
 9 you that? Because Armour products were the products
 10 that were used or in Glasgow, the Children's Hospital,
 11 and had been by Dr Willoughby before.
 12 **A.** Sorry, Sir Brian, did you say October 1983?
 13 **SIR BRIAN LANGSTAFF:** Yes.
 14 **A.** I think by that time we were probably using
 15 predominantly NHS and very little commercial
 16 concentrate. So that information may not have been
 17 available to us at the time or to me.
 18 **SIR BRIAN LANGSTAFF:** But the little that you were using
 19 was Armour still, was it?
 20 **A.** The little, yes. But I think probably the Armour used
 21 in 1983 would have been more at the beginning rather
 22 than at the end. But yes, certainly if we were using
 23 some it would be Armour commercial concentrate.
 24 **SIR BRIAN LANGSTAFF:** Just two further questions.
 25 The first is about children and

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

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

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

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1 **Further questioned by MS RICHARDS**
2 **MS RICHARDS:** Sir, there is just one further question
3 I have been asked to ask arising out of Dr Pettigrew's
4 answers.
5 Dr Pettigrew, you referred to Gallo. Were you
6 aware of Gallo's work prior to 1984, in particular his
7 work in relation to HTLV-I and II?

8 **A.** No.

9 **MS RICHARDS:** Thank you.

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

12 **A.** Yes, if I could just say, I heard Dr Saad Al-Ismail
13 say in his final statement to the Inquiry, he said:
14 "I firmly believe that the most distressing
15 experience for a doctor is to witness harm in his
16 patients from treatment received. This feeling of
17 devastation, even if harm was unintended and
18 unforeseen, is shared by my colleagues who look after
19 patients with haemophilia."

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

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

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

12 **SIR BRIAN LANGSTAFF:** Yes. Yes, thank you.

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

17 **A.** As far as I recall, yes.

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

21 **A.** Definitely one, yes.

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

23 **A.** As far as I recall, yes.

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

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

12 Thank you.

13 **MS RICHARDS:** Thank you, Dr Pettigrew.

14 Sir Brian.

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

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

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1 for that. And to me, it was particularly evident when
2 this morning, just before we broke for lunch, you were
3 obviously struggling a little to describe what it was
4 like to tell parents that their child had
5 HIV infection, and when I asked you about the distress
6 that it caused, you didn't, as some others might have,
7 indeed some have done, spoke first about their own
8 feelings of distress before mentioning their patient.
9 Your response was immediately to think of the distress
10 caused to the patients and only after that to think
11 about yourself, and that to me said quite a lot, and
12 quite a lot to your credit, if I may.
13 But you've been refreshingly straightforward
14 and thank you for coming or for being there, rather,
15 for allowing us to invade your home for this purpose.
16 Thank you very much indeed.
17 A. Thank you, Sir Brian, for giving me the opportunity to
18 give my testimony.
19 SIR BRIAN LANGSTAFF: We had to have it.
20 A. Yes. Thank you. Thank you, Ms Richards.
21 MS RICHARDS: Sir Brian, we start tomorrow at ten o'clock
22 with the evidence of Professor Hann.
23 SIR BRIAN LANGSTAFF: 10 o'clock tomorrow.
24 (3.44 pm)
25 (Adjourned until 10.00 am the following day)

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<p>1.04 pm [1] 89/8</p> <p>10 [5] 59/3 59/4 78/23</p> <p>83/19 123/15</p> <p>10 o'clock [1] 133/23</p> <p>10.00 [2] 1/2 133/25</p> <p>10.19 [1] 1/4</p> <p>108 patients [1] 9/12</p> <p>109 [1] 79/3</p> <p>11 [3] 3/24 46/18</p> <p>78/23</p> <p>11.30 [1] 47/10</p> <p>11.57 [1] 47/12</p> <p>12 [7] 10/10 10/10</p> <p>46/21 47/8 79/16</p> <p>79/18 123/15</p> <p>12 months [1] 123/15</p> <p>13 [1] 9/10</p> <p>13 March 1984 [1]</p> <p>49/12</p> <p>14 with [1] 9/4</p> <p>15 [3] 9/25 10/19</p> <p>10/22</p> <p>15 May 1985 [5] 81/6</p> <p>81/7 81/14 82/19 83/2</p> <p>15/5/85 [2] 80/13</p> <p>80/25</p> <p>150 [2] 2/10 2/11</p> <p>15th [1] 81/12</p> <p>16 [5] 10/19 10/23</p> <p>62/15 62/19 121/24</p> <p>17 [1] 10/24</p> <p>17 May 1985 [2] 74/1</p> <p>74/9</p> <p>18 [1] 64/4</p> <p>19 [4] 22/21 24/17</p> <p>50/2 79/11</p> <p>19 per cent [1] 26/14</p> <p>1970 [1] 22/21</p> <p>1970 - 2011 [1] 8/25</p> <p>1970s [1] 3/1</p> <p>1975 [1] 41/8</p> <p>1976 [1] 3/2</p> <p>1977 [4] 3/3 24/21</p> <p>25/25 26/2</p> <p>1978 [1] 52/19</p> <p>1979 [3] 3/5 26/12</p> <p>27/2</p> <p>1980 [12] 6/3 9/3</p> <p>15/22 20/17 22/21</p> <p>25/11 26/14 52/21</p> <p>79/19 103/25 104/3</p>	<p>105/4</p> <p>1980s [10] 13/6 31/12</p> <p>31/21 40/21 44/13</p> <p>47/15 104/3 110/7</p> <p>110/20 119/13</p> <p>1981 [5] 26/15 34/6</p> <p>79/19 79/20 117/8</p> <p>1981-1983 [1] 79/22</p> <p>1981-82 [1] 79/20</p> <p>1982 [8] 20/18 23/4</p> <p>26/16 29/24 30/7</p> <p>59/24 111/23 117/8</p> <p>1982-83 [1] 79/21</p> <p>1982-84 [1] 79/23</p> <p>1982/83 [1] 58/19</p> <p>1983 [28] 7/16 13/25</p> <p>15/22 26/19 29/18</p> <p>48/7 48/10 48/22 59/8</p> <p>59/16 60/4 60/20</p> <p>60/23 61/5 70/20</p> <p>79/22 89/21 100/1</p> <p>100/25 116/19 122/25</p> <p>124/18 124/19 127/9</p> <p>127/18 128/7 128/12</p> <p>128/21</p> <p>1983/84 [1] 62/23</p> <p>1984 [29] 16/8 16/10</p> <p>25/16 26/23 31/22</p> <p>31/25 46/11 49/12</p> <p>51/21 52/7 54/13</p> <p>56/11 56/16 56/18</p> <p>57/7 75/3 83/7 83/22</p> <p>91/17 93/2 100/1</p> 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