

Thursday, 12 May 2011

1

2 (9.30 am)

3 THE CHAIRMAN: Good morning. Yes, Ms Dunlop.

4 MS DUNLOP: We have Dr Frank Boulton.

5 THE CHAIRMAN: Good morning, Dr Boulton.

6 DR FRANK BOULTON (affirmed)

7 Questions by MS DUNLOP

8 MS DUNLOP: Good morning, Dr Boulton. We are going to  
9 begin, as we usually do, by looking at your curriculum  
10 vitae. You have actually submitted two documents. I  
11 think one is entitled a "biography" and one is entitled  
12 a "curriculum vitae". They are both very short. Could  
13 we have the first one, which is WIT0030293.

14 This tells us a bit about you, that you studied  
15 medicine in London. You did an MD on haemoglobin  
16 variants and you became a fellow of the  
17 Royal College of Physicians of Edinburgh in 1986. And  
18 then the positions you have held. I see you were at The  
19 London hospital. Were you there at the same time as  
20 Dr Colvin?

21 A. Yes, Brian Colvin followed me.

22 Q. I thought you must be. You then became a senior  
23 lecturer in haematology at the Royal Liverpool Hospital  
24 and Liverpool University and also the director of the  
25 Liverpool Haemophilia Centre between 1975 and 1980, and

1           then you came to Edinburgh. Consultant and honorary  
2           senior lecturer in haematology and blood transfusion in  
3           Edinburgh between 1980 and 1990, and you were also the  
4           deputy director of the Edinburgh and Southeast Scotland  
5           Blood Transfusion Service, I think, from 1982?

6   A. Correct.

7   Q. Then you went to Southampton and you retired from the  
8           NHS and blood service in 2006, but you remain a visiting  
9           lecturer in the faculty of medicine in Southampton.

10           Then we can see other positions you have occupied;  
11           including being the chair of the UK National Advisory  
12           Committee on the Care and Selection of Blood Donors for  
13           six years to 2006. And the chair of transfusion  
14           taskforce of the British Committee for Standards in  
15           Haematology, also in the early 2000s. You have some  
16           overseas' experience and I think, like many of our  
17           witnesses, a list of publications dealing with various  
18           topics, but you haven't given us a list of those and  
19           there is no problem with that.

20   A. It would be too boring to do so.

21   Q. Thank you.

22           Your other document is PEN0150506. Much the same  
23           information, although you have told us on this document  
24           a little bit more about your past as a haemophilia  
25           director.

1 A. Yes.

2 Q. We can see that there is some extra information with an  
3 asterisk in about the middle of the page.

4 Just to let everybody take a moment to read that.

5 (Pause)

6 Dr Boulton, a number of witnesses wear more than one  
7 hat and you are obviously here today having been  
8 a haemophilia centre director and also having worked in  
9 a Blood Transfusion Service, which is more unusual.  
10 I just wondered, you obviously moved across from  
11 haemophilia care into blood transfusion; why did that  
12 happen?

13 A. The situation in blood transfusion at that time, and to  
14 some extent still, differed very considerably from that  
15 in England. I think it would be fair to say that the  
16 history of the development of the Blood Transfusion  
17 Service in England was around a model whereby there was,  
18 originally, from the military regions in the  
19 Second World War, a regional basis of blood transfusion,  
20 blood donations, blood supply systems set up in a way  
21 that there was an organised system of collecting and  
22 testing the donations to be supplied to hospitals. For  
23 example, the 12 or 10 teaching hospitals in London were  
24 each supplied with blood from a region that would supply  
25 three or four of them. The model was that a regional

1           centre, with its specialist staff of collecting and  
2           testing and a few doctors to take the organisation,  
3           would be supplying the blood but the blood and its  
4           products would be used in a hospital by a team,  
5           initially of pathologists in the blood bank, supplying  
6           it to the clinicians, the surgeons and the doctors.

7           So there was a pretty clear split that developed  
8           throughout England of the regional model, whereby  
9           a centre, for example in Southampton, would be supplying  
10          a series of hospitals in the region, of perhaps 3 or  
11          4 million people around it, where there would be between  
12          a dozen or two or three dozen hospitals. The hospitals  
13          having their clinicians using the blood but the blood  
14          actually coming from a centre in usually a university  
15          town somewhere in the middle of that supply chain.

16          In Scotland, and in particularly on the East side of  
17          Scotland, in Edinburgh, less so than on the West side in  
18          Glasgow, but on the east side of Scotland, Edinburgh,  
19          Dundee, Inverness, Aberdeen, the model was more that the  
20          transfusion service was developed within the settings of  
21          an active working teaching hospital, in Edinburgh's case  
22          in the Royal Infirmary. So that within the Royal  
23          Infirmary we had a transfusion centre that also had an  
24          very active clinical base. Whereas in England the blood  
25          bank -- that is the laboratory which tested the

1           donations, selecting them for specific patients -- was  
2           part of that hospital's responsibility, usually within  
3           a haematology department; in Edinburgh the testing of  
4           blood to be supplied to patients specifically was  
5           actually done within the remit of the transfusion  
6           centre, which is a contrast.

7           Obviously there were and are haematologists in the  
8           hospital and other clinicians in the hospital who would  
9           be using the blood, but the actual supply of blood and  
10          its products to patients was under the control, or at  
11          least under the responsibility of the  
12          regional transfusion centre, in those days, in the  
13          1980s, in the Royal Infirmary at Lauriston Place.

14        Q. Thank you.

15        A. Therefore, what I should add is that the attraction to  
16          me of moving to Edinburgh from Liverpool was different  
17          from say, had I moved from Liverpool Hospital to  
18          Liverpool transfusion centre. I would have been less  
19          likely to have done that in those days because the  
20          nature of the work at the Liverpool transfusion centre  
21          was very different from the nature of the work at the  
22          Edinburgh transfusion centre. The Edinburgh transfusion  
23          centre was much closer to patients than the Liverpool --

24        Q. I was going to say, much more of a clinical content in  
25          the position in Edinburgh.

1           There were two things that were striking me as you  
2           were speaking, Dr Boulton, and the first was about  
3           London. So if you had drawn London as a very big circle  
4           or a very big oval, probably right to do, and then  
5           perhaps quartered it, is that an accurate mental  
6           picture --

7    A.   Pretty well. The south is a bit blurred because  
8           Lewisham in the southeast was always fighting for its  
9           independence from Tooting in the south-west, but in the  
10          north you had a clear northeast that was interestingly  
11          centred in Brentford in 1950, and the story was, and  
12          I think it was true, that it was put out there in case  
13          an atom bomb fell on London and that there would be  
14          a surviving centre outside London that could supply  
15          blood. Whereas in the northwest, it was set at  
16          Colindale which was a little bit more central.

17          But, yes, the mental picture is right: that London  
18          was divided into four quarters and in each of the  
19          quarters there would be three or four teaching hospitals  
20          and a whole host of non-teaching hospitals who would be  
21          dependent on blood collected in that region.

22    Q.   Right. It is interesting how often still one can trace  
23          developments back to the war.

24    A.   Yes.

25    Q.   We spoke earlier this week about Law Hospital.

1 A. Yes.

2 Q. About its having been built where it was so that it  
3 would be a safe distance from Glasgow, again for reasons  
4 connected with the threat of bombing.

5 A. That's right.

6 Q. That was the second point that struck me when you were  
7 speaking, that it has seemed as though the transfusion  
8 set-up in the West of Scotland was really slightly  
9 different --

10 A. The model in the West of Scotland was more like -- not  
11 totally like but more like the English.

12 Q. Yes. In the sense of having this geographically distant  
13 centre --

14 A. Geographically distant centre, the medical staff of  
15 which were less involved in direct patient care than the  
16 medical staff of the Edinburgh centre were with the care  
17 of patients in Edinburgh; both the Royal Infirmary and  
18 related hospitals and other hospitals in Southeast  
19 Scotland.

20 Q. Yes. Thank you.

21 Because of your involvement as a haemophilia  
22 director in the 1970s, it did occur to me to ask you if,  
23 for example, you remember the World in Action programme.  
24 You may know that we watched it. It was two programmes  
25 from December 1975 about the preparation of plasma

1 products in the United States. I just wondered if you  
2 remembered having seen that?

3 A. I certainly do remember, yes.

4 Q. Did you watch it when it was on or did you watch it  
5 afterwards?

6 A. I didn't see the programmes live but I was very shortly  
7 made aware of those programmes.

8 Actually there is a slight -- it is not a conflict  
9 of interest but I have a brother who was working with  
10 Granada on the World in Action team at that time and  
11 I can certainly remember me being actually slightly  
12 cross with him because at that time -- and in fact on  
13 reflection, I think my brother was right -- I felt that  
14 the World in Action programme had exaggerated the  
15 problems. But I was then quite a young and not very  
16 experienced doctor and not quite so aware of how things  
17 would work out.

18 So I suspect that that World in Action programme --  
19 I certainly remember it very well and I remember  
20 conversations after it, and having read the transcript  
21 of it again very recently, it brings it back.

22 Q. We have all imagined it being the talk of the hospital,  
23 as it were. Is that how it was in your hospital?

24 A. Well, I think actually at the time the programme came  
25 out, I was not yet in Liverpool because I came to



1           Liverpool in October 1975, or if it was around then,

2           I was right in the middle of moving.

3   Q.   Yes, December.

4   A.   It was December? That's right. This was December and  
5       my attention was quite honestly on other things like  
6       organising a family move up from London to Liverpool and  
7       I became aware of it, as I say, through my family  
8       connection with the production of the programme and also  
9       it clearly was discussed at the Liverpool centre. But  
10      by the time I really settled into my job in Liverpool in  
11      early 1976, it was already in the past.

12   Q.   Right. But do you remember it having a continuing  
13      effect in relation to your attitude to products from the  
14      United States of America?

15   A.   I might comment that back in London in 1973 or 1974,  
16      I had a haemophilic patient who needed Factor VIII over  
17      Christmas for a fairly major dental problem. He  
18      developed an abscess and it needed surgery. And  
19      although he was a mild haemophilic, we did not have  
20      enough Factor VIII cryoprecipitate or NHS Factor VIII in  
21      stock to safely cover his surgery in my opinion. This  
22      would be literally Christmas Eve in 1973.

23                So I ordered in a small amount of commercial  
24      Factor VIII, which was just becoming available at that  
25      time, and this mild haemophilic man in his 50s did

1 receive some commercial Factor VIII, as a result of  
2 which he got both Hepatitis B and non-A non-B. So that  
3 struck home to me very vividly. So I had a rather rude  
4 awakening into the dangers of hepatitis from  
5 commercial -- in this case it was American --  
6 Factor VIII.

7 So one of the naive reactions that I had in  
8 Liverpool was when we bought commercial Factor VIII it  
9 was not American, it was European. It came from  
10 Austria. So clearly there had been a concern that  
11 American products were to be avoided. I think that was  
12 a legitimate, or at least an understandable reaction to  
13 my experience of treating and giving a patient -- and we  
14 didn't know at that time exactly the consequences of  
15 non-A non-B. It is very likely, if that man is still  
16 alive, and I remember him well, he would be in his mid  
17 80s now. It is quite likely that he would have had  
18 quite a significant dose of hepatitis and liver disease.

19 Q. Where did Immuno get their plasma?

20 A. Austria.

21 Q. So it was Austrian plasma?

22 A. Yes.

23 Q. They didn't import --

24 A. Quite honestly, I did not at that time conduct  
25 a detailed enquiry into where all the donors came from,

1 and it is indeed quite possible that some of the plasma  
2 they procured and fractionated came from America.  
3 I would not know that but at the time I was clearly  
4 under the impression, and had been told by their own  
5 director, Norman Berry, that the material was Austrian  
6 in origin.

7 Q. Thank you.

8 A. But clearly from paid donors.

9 Q. I noticed that you had attended a meeting in 1977.  
10 Obviously because, having realised you had been  
11 a haemophilia centre director, I was looking for you and  
12 you are recorded as having been at the meeting of  
13 24 January 1977. Could we just have a quick look at  
14 that? It's [\[SNB0017245\]](#).

15 A. Yes.

16 Q. There you are. Liverpool Royal Infirmary.

17 A. Yes.

18 Q. That was a meeting in Oxford?

19 A. Yes.

20 Q. I think, for our purposes, the most interesting part is  
21 page 6, if we could go to that, please.

22 Sorry, this is one of these documents where every  
23 second page is blank from the way it has been scanned or  
24 something. So when I say page 6, I'm meaning numbered  
25 page 6 but we may have to scroll through a few more to

1 find it. It's probably about page 11 or something. It  
2 is page 11.

3 It is just I notice that this is a meeting at which  
4 there had been a general discussion of the supply of  
5 Factor VIII in the United Kingdom.

6 A. Yes.

7 Q. Dr Boulton, it would be pretty amazing if you remembered  
8 this but I did just want to ask you: do you remember  
9 this meeting? Do you remember anything about these  
10 discussions?

11 A. Only very, very vaguely. I have no precise memory.

12 Q. Do you remember anything about this debate that we can  
13 see cropping up here, about whether English plasma could  
14 or should be sent to Scotland for fractionation?

15 A. No.

16 Q. We can see that Dr Prentice, whom we know to have been  
17 a haemophilia centre co-director in Glasgow, is saying  
18 that he thought there was still a shortage of  
19 Factor VIII in Scotland and he had to buy commercial  
20 Factor VIII to treat his patients.

21 A. I don't think I would have been particularly concerned  
22 about the Scottish situation at that stage in my life.

23 Q. Can we move then to your arrival in Edinburgh. I think  
24 it must have been at the beginning of 1980. Is that  
25 right?

1 A. Yes, January 1980 I think it was, the middle of January.

2 Q. We can see you in action in February 1980. Can we look  
3 at a letter, please, [\[SNB0072566\]](#)?

4 It looks, Dr Boulton, as though from very shortly  
5 after your arrival, you were in discussions with  
6 Dr Ludlam, who must have been a new arrival around that  
7 time too, about the question of home therapy. I'll just  
8 give you a minute to look at the letter. (Pause)

9 A. I have no specific memory of writing the letter, but  
10 I would think -- well, it clearly is authentic.

11 Q. Yes.

12 A. Actually it would fit the pattern in my mind, yes.

13 Q. Yes. I was going to ask you about that. Firstly, when  
14 you arrived in Edinburgh, did you become aware of what  
15 the then prevailing position was regarding haemophilia  
16 therapy?

17 A. Yes, I mean, this letter would indicate that I had had  
18 already, within the first couple of weeks of my arrival  
19 in Edinburgh, met and spoken to Christopher, who  
20 I remember from before, and he had made his position  
21 pretty clear and I felt at that time, and I think the  
22 feeling was right, that this was the right way ahead.

23 Q. Right. Had you known Dr Davies, who was Dr Ludlam's  
24 predecessor?

25 A. Only very slightly. I can't remember if I had met him

1 at one of the other HDO meetings but I did meet him  
2 afterwards. I did come to meet him and his wife was  
3 a practising consultant at the hospital at the same  
4 time. So there were occasions when I did meet Howard.

5 Q. Did you know anything about his views on concentrates?

6 A. Yes, he was a wise man and wiser in retrospect, perhaps,  
7 than seemed at the time.

8 Cryoprecipitate is very messy to deal with. My  
9 initial experience of dealing with cryoprecipitate was,  
10 believe it or not, as a houseman in Portsmouth in 1967,  
11 when the local haematologist was a man called  
12 Dr John O'Brien, who had been among the Oxford team that  
13 discovered Christmas Disease in 1952. And Dr O'Brien  
14 had at his beck and call The Royal Navy. And a severely  
15 haemophilic man developed bladder cancer, the first sign  
16 of which was heavy bleeding. Cryoprecipitate had been  
17 described only two years before and John O'Brien was  
18 able to procure fresh donations from the ships and the  
19 naval bases in Scotland, and make them into  
20 cryoprecipitate and I was the young man who had to  
21 deliver the cryoprecipitate into the haemophilic  
22 circulation as the houseman. I wasn't even aware that  
23 I was going to become interested in haemophilia later.

24 This man had very poor veins and I managed to  
25 catheterise a narrow vein on the back of his hand, which

1 was like gold dust to me, and I kept it going for a week  
2 and it had regular infusions of cryoprecipitate into it.  
3 Dr O'Brien was not pleased with me for using one vein  
4 for a week because he felt it was likely to cause  
5 thrombosis, interestingly, and I should have  
6 catheterised a new vein every day. I politely told him  
7 I thought he was wrong but that goes to show that my  
8 introduction to cryoprecipitate was early.

9 It is messy to deal with. In order to maximise its  
10 potency, one should wash out each bag with a bit of  
11 citrate, and it had this nasty property of gunking up  
12 and so it was not easy. So I had every sympathy with  
13 doctors whose job became a daily infusion of  
14 cryoprecipitate. Nevertheless, when I was in Liverpool  
15 as a consultant, I regularly did such stuff myself,  
16 partly to support the junior staff and partly to show  
17 them that it was actually a part of their duties.

18 Q. Would you sign up to a view that has been expressed by  
19 others that it really was not suitable for home therapy?

20 A. Very difficult for home therapy. It was not totally  
21 unsuitable. It could be used. But the patients, and if  
22 they were a young boy, the patient's family, the  
23 parents, would need quite careful and specific training  
24 and monitoring so to do. And so it was only really  
25 practical in families (a), who were relatively well

1           trained and (b), probably in fairly close proximity to  
2           the hospital in case things went wrong.

3    Q.   Right.  So just to go back to Dr Davies, what was your  
4           understanding of his views about different forms of  
5           therapy when you arrived?

6    A.   I can't say that I was aware of those views within the  
7           timeframe of writing this letter, but as time went by,  
8           I did become aware of views that there were problems  
9           with fractionated product, even from NHS volunteer  
10           donors.  But I think it was not unreasonable for the  
11           newer generation to advocate an increase in usage of  
12           Factor VIII.

13                 The problem was that if one were to restrict the use  
14           to what, at that time, was felt on good grounds but not  
15           on established grounds, to be a safer product, ie  
16           a cryoprecipitate that was more difficult to use, less  
17           potent, the patients would not have so much protection  
18           from joint damage, whereas one would be able, with  
19           higher doses of smaller volume infusion lyophilised from  
20           the freeze-dried fractionated product, be able to embark  
21           on a programme of prophylactics for preventing the  
22           damage to joints, particularly in boys as they were  
23           approaching their teens.

24    Q.   If that's the distinction between cryoprecipitate and  
25           concentrates, what did you discover to be the prevailing



1 view in Edinburgh about the difference between American  
2 concentrates and NHS concentrates; can you remember  
3 that?

4 A. We go back to the wonderful book, *The Gift Relationship*,  
5 by Richard Titmuss, which came out in 1970, which  
6 I still think -- I'm sure that many in this room will  
7 now have read that book and indeed its sequence, and  
8 indeed Richard's daughter, Ann Oakley, has also written  
9 on the same subject.

10 Although it is a rather ponderous social study type  
11 book, *The Gift Relationship*, it very clearly describes  
12 the risk of using blood from donors who are paid, that  
13 is the profit-making donor centres, and the blood from  
14 the non-profit-making donor centres, who used volunteer  
15 donors in America.

16 And indeed, there was a long drawn-out legal battle  
17 in America in which the for-profit companies were taking  
18 the not-for-profit companies to court for unfair  
19 practices; in other words, undercutting their commercial  
20 development by using donations that were not paid for.

21 The book very clearly established the greater risk  
22 from using blood -- this is not fractionated products  
23 but just straight blood -- from donors who are paid  
24 compared with donors who are not paid, and although  
25 there has been more than one magnitude of difference

1 drop in the risk of paid and non-paid blood donors, that  
2 debate is still going on to this day, as far as I know.

3 So by 1980 one would be very aware of the problems  
4 of using blood from donors who were paid and therefore,  
5 fractionating plasma from donors who were paid, and  
6 going back to the World in Action programme, that was  
7 certainly highlighted, and I think that one was  
8 certainly aware that there were risks associated with  
9 using commercially obtained plasma from companies who  
10 were bleeding their donors and paying them in America or  
11 indeed, on reflection, in Austria.

12 Q. So much so that Dr Davies, we have heard, didn't want to  
13 use the commercial products at all.

14 A. That, I think, would be fair comment.

15 Q. Yes. We also understand that Dr Ludlam continued that  
16 policy when he arrived in Edinburgh in 1980.

17 A. But the letter does indicate that Christopher was quite  
18 rightly anxious to increase the use of Factor VIII for  
19 the haemophilic patients, particularly the young ones,  
20 and that his preferred option was to use PFC-derived  
21 Factor VIII concentrate.

22 Q. Just to look at the response to the letter, can we look  
23 at [\[SNB0072568\]](#). This is actually from Mr Watt back to  
24 you.

25 A. Yes.

1 Q. He makes a point in his letter about:

2 "... a bias in favour of Inverness where the  
3 geography of the region makes a more widespread  
4 utilisation of home therapy a rather necessary fact of  
5 life."

6 I haven't really come across very many references of  
7 that nature, Dr Boulton, but it is interesting to see it  
8 because in about 1973, when the commercial concentrates  
9 were coming in, at least some people seemed to think  
10 that perhaps they would be for people who lived a long  
11 way away from the haemophilia centre, but I think we  
12 understand that that wasn't really translated into  
13 practice.

14 A. There is a good reason why it wasn't necessarily  
15 translated into practice and I probably didn't make it  
16 clear enough to John Watt at the time. There is the  
17 magnetic effect of having a haemophilia centre, and this  
18 was particularly characterised historically in Oxford,  
19 where the centre there was developed under the great  
20 Dr MacFarlane, and Oxford became a magnet so that many  
21 haemophiliacs' families moved into the Oxford region so  
22 that their children could be treated.

23 It is quite possible, indeed probable, that some  
24 haemophiliacs' families in Scotland gravitated to  
25 Edinburgh and Glasgow, where they would be more likely

1 to get treatment more promptly. So although Inverness  
2 has the relative problem of geographic remoteness and  
3 the haemophilic living in the Western Isles actually was  
4 probably supplied by Aberdeen -- but nevertheless -- I  
5 think Aberdeen supplied the Orkneys and the Western  
6 Isles were supplied by Inverness. Although there was  
7 that very real geographical problem, it may have been  
8 more than countered -- although I wouldn't know this for  
9 certain by any means -- by, as I say, the magnetic  
10 effect of having a dedicated centre in a city like  
11 Edinburgh or Glasgow.

12 Q. Can we just look at the second page of the letter,  
13 please.

14 I think, in short, we can see that this letter was  
15 Mr Watt. We have to go on to page 3. We have another  
16 blank page here.

17 A. Yes.

18 Q. Mr Watt had come up with a sort of plan. I don't think  
19 we need to go into the details of it because it doesn't  
20 look as though it actually was implemented, if we look  
21 at another letter, which is one that Dr Cash wrote. We  
22 can see this letter was copied to him, and then  
23 [\[SNB0072571\]](#), Dr Cash didn't seem to like the proposal.

24 Well, Dr Boulton, we know that one way or another,  
25 and perhaps with a few initial hiccups, more of a home

1 therapy programme did become established in Edinburgh  
2 using product from PFC, and you were obviously assisting  
3 Dr Ludlam in getting that up and running from 1980  
4 onwards.

5 A. I think this correspondence, which I have seen recently,  
6 there is a slightly unfortunate assumption in there that  
7 John Watt felt that I could personally increase the  
8 amount of plasma that would go to PFC. Maybe that's  
9 unfair on John, and when he uses the word "you" in his  
10 letter to me, he wasn't referring to me personally but  
11 the Edinburgh centre.

12 What I can say is that at that time and shortly  
13 after, the amount of blood donated in the Edinburgh  
14 region was much higher, the number of donors that  
15 donated per year, the number of donations collected per  
16 year, was much higher than the national average,  
17 certainly in England, and it was actually accompanied by  
18 an almost conscious excess discard rate of red cells.

19 In other words, the blood donation emphasis became  
20 driven by the need for plasma so that a very significant  
21 proportion -- I'm not talking about 5 per cent but  
22 15/20/25 per cent -- of the donations were collected and  
23 the red cells not used. So we were never short of red  
24 cells. But what we did do was to take off 200 mls of  
25 plasma from each donation to maximise the supply of

1 plasma within the bounds of the donor supply, the amount  
2 of plasma. And of course, when optimal additive became  
3 available in the early 1980s, that increased our yield.  
4 So steps were actually taken to increase the volume, the  
5 kilogrammes of plasma that were sent to PFC.

6 So although the specific proposals in this letter  
7 and its reply and John Cash's reaction to it were not  
8 specifically developed in the way that Christopher and  
9 I would have liked, there was still a marked increase in  
10 the amount of plasma that I think was sent to PFC and  
11 I guess that was also reflected from the other regions  
12 as well.

13 So we in Scotland were doing our very best to  
14 maximise the kilogrammes of plasma sent to PFC, and  
15 I think at that time I have no doubt we were way ahead  
16 of the situation in England.

17 Q. We have also had a impression from very detailed paper  
18 that Dr Foster has given us of efforts at PFC really to  
19 use every scrap.

20 A. Absolutely.

21 Q. Yes. To recover every scrap and to use every scrap.

22 A. I think I'm right in saying that they even used -- the  
23 plasma that the centres made into cryoprecipitate would  
24 result in a cryosupernatant, and I think that PFC even  
25 used cryosupernatant to get Factor VIII, because the

1 cryoprecipitate would have contained about 50 per cent  
2 of the original Factor VIII in the donation. That would  
3 be in 30 mls. The remaining 180/200 mls of  
4 cryosupernatant plasma still had Factor VIII in it. And  
5 although this would need to be confirmed from Dr Foster,  
6 I seem to remember that cryosupernatant was also put  
7 into the pot to make fractionated Factor VIII.

8 Q. I think that may have been an initiative that Dr Foster  
9 said in his paper was less successful because some of  
10 the batches were too "weak".

11 A. But it reflects the conscious need to maximise  
12 Factor VIII yields.

13 THE CHAIRMAN: I think there is a considerable history of  
14 development of supernatant Factor VIII but also  
15 considerable resistance from some directors to its use.

16 A. Yes.

17 THE CHAIRMAN: Especially from the West of Scotland. Or  
18 does that not square with your recollection?

19 A. I was not directly involved in discussions in the West  
20 of Scotland.

21 THE CHAIRMAN: We might hear a little from you about the  
22 insularity, otherwise called the autonomy, of different  
23 regions.

24 A. Yes.

25 MS DUNLOP: Just sticking, Dr Boulton, with a sort of

1           chronological progress at the moment and moving into  
2           1981, I wanted to go back to another meeting, which is  
3           [\[SNB0017354\]](#). The interest of this is really to note  
4           and come back to it later, about arrangements for  
5           obtaining, holding and distributing blood products.  
6           This is the minutes of a meeting of UKHCDO at the Royal  
7           Free on 9 October 1981. You were at that, by this time  
8           from the SNBTS in Edinburgh. If we go to page 9 of this  
9           document, please, I think this is going to be page 9.

10           We can see that this is a discussion of the question  
11           of purchasing, holding and distribution by blood  
12           transfusion centres of blood products; stocks of all  
13           types, including Factor VIII and Factor IX concentrate.

14           As I read this, Dr Boulton, it is really discussing  
15           a problem in England, I think. I'll let you take  
16           a minute to look at it. (Pause)

17           Perhaps we can scroll down to the bottom of the  
18           page, thank you. (Pause)

19           Perhaps we should look at the next page as well,  
20           please. (Pause)

21           It rather looks, putting it very crudely,  
22           Dr Boulton, as though the quid pro quo for retaining  
23           control over purchasing, holding and distribution of  
24           products was better furnishing of data about what was  
25           going on, to enable health authorities and transfusion



1 centres to carry out long-term planning. Do you  
2 remember this being a tussle in England about who had  
3 control over the purchase, holding and distribution of  
4 products?

5 A. I do have memories. They are rather vague. I think it  
6 should be realised -- and this is no aspersion to the  
7 English, who are ten times bigger than the Scots -- that  
8 the dozen or so regions and the relationship between the  
9 regional transfusion centre and the local clinicians,  
10 particularly the haemophilia doctors, was highly  
11 variable. In some there was a close relationship  
12 between the haemophilia director and the region,  
13 possibly helped by geography, and that was certainly the  
14 case at Liverpool and in others there would be a more  
15 remote relationship.

16 I remember in Liverpool I was given a budget of  
17 £40,000 to buy commercial Factor VIII and I was praised,  
18 amazingly, by the finance director, for keeping more or  
19 less within budget. But I also kept the transfusion  
20 centre, under Dermot Lehane in Liverpool at that time,  
21 aware of what was going on. So there was a sharing of  
22 information. We used whatever we could from Elstree.  
23 We used whatever we could from the transfusion centre in  
24 the way of cryoprecipitate, but we had to buy extra, and  
25 I'm pretty sure that we kept all parties informed. I'm

1 not sure that that pattern was duplicated across all the  
2 other centres in England.

3 Q. Right. I want to come back to that, having noted that  
4 that seems to have been the set-up in England. But now  
5 can we move to a slightly different theme by looking at  
6 a meeting of UKHCDO in September 1982. The meeting took  
7 place on 13 September and we have a number of different  
8 notes of that meeting, including one written by you.

9 A. Yes.

10 Q. Which is [\[SNB0017494\]](#). I don't think this one is signed  
11 but --

12 A. This is me.

13 Q. It is you, yes?

14 A. Yes.

15 Q. There may be a signature on the last page but anyway,  
16 you are content that you wrote this?

17 A. Yes.

18 Q. We can see a number of points mentioned with which we  
19 are already familiar, but the particular matter to which  
20 I wanted to direct your attention is the reference to  
21 what was said about Acquired Immunodeficiency Syndrome  
22 in the United States.

23 Can we just move through, please, towards the end of  
24 Dr Boulton's note?

25 You see that note there, Dr Boulton:

1 "Acquired Immunodeficiency Syndrome."

2 A. Yes, I see the note.

3 Q. You perhaps know what I'm going to ask you, which is  
4 your record of the fact that three cases had occurred in  
5 haemophiliacs in the USA, possibly associated with  
6 parenteral drug abuse. You have also written there is  
7 a remote, underlined, possibility of transmission via  
8 commercial Factor VIII.

9 The reference to there being a remote possibility of  
10 a connection with blood products does feature in the  
11 main minutes of the meeting but not the idea that the  
12 cases in people with haemophilia in America might be  
13 associated with parenteral drug abuse. Just before  
14 I ask the question, can we compare what was said in the  
15 MMWR, which is [\[LIT0010559\]](#). Look at this report.

16 A. Can we see the date of that?

17 Q. Yes, this is 16 July 1982. It is actually stated in the  
18 first paragraph that:

19 "All three were heterosexual males. None had  
20 a history of intravenous drug abuse."

21 If we look on to the second page, if we could,  
22 please, and I think we need to go down to the editorial  
23 note at the end of the second paragraph. It says:

24 "The occurrence among the three haemophiliac cases  
25 suggests the possible transmission of an agent through

1 blood products."

2 Dr Boulton?

3 A. Yes, yes.

4 Q. It is turning into a big question, but firstly you made  
5 a reference in your note to a possible connection with  
6 parenteral drug abuse and you also recorded that the  
7 possibility of a connection with blood products was only  
8 remote. I don't imagine that you made that up yourself.  
9 Do you remember what the source of that information in  
10 your note was?

11 A. It was the proceedings of a meeting. This was not  
12 a personal opinion about being remote. This was my  
13 record, taken by myself, with notes then transcribed  
14 a few days later, of the discussions at the meeting; and  
15 I think it is in the context of the hepatitis risk,  
16 which is the item immediately above there. So it was  
17 not a personal opinion; it was just what was said at the  
18 meeting.

19 Q. Yes. Indeed, but you don't remember who said it?

20 A. No, I didn't note that but, as I say, this comes in the  
21 context of the notes, immediately after the hepatitis  
22 risk.

23 Q. Yes.

24 A. So it would have been, in my recollection -- and if  
25 Christopher was there, he may remember better than me --

1 but my recollection is that this was not quite  
2 a throwaway but as a bit of an extra about the  
3 infectious risk, and the emphasis was on hepatitis. And  
4 I might comment that -- and I'm sure you will have  
5 observed as well -- there are two other reports in your  
6 files of the same meeting.

7 Q. Yes.

8 A. One of which I think came from PFC.

9 Q. One is Dr Perry and the other is from the Haemophilia  
10 Society.

11 A. That's right. And in neither case is a reference made  
12 to that particular item about AIDS, and so the only  
13 report in your files of the meeting that mentions the  
14 fact that AIDS was discussed at all was in my notes.

15 So I haven't actually seen recently the actual  
16 official minutes of that meeting. It would be  
17 interesting if they had a reference to it.

18 Q. Yes. The official minutes don't say that there might  
19 have been a connection with intravenous drug abuse.  
20 They do say that there was a remote possibility that  
21 blood products might be involved.

22 A. That's right.

23 Q. I think the only significance of it, Dr Boulton -- and  
24 at the end of the day it's only nuance.

25 A. Absolutely.

1 Q. But perhaps it could be thought there is a hint of, even  
2 at this stage, the risk being downplayed.

3 A. Sadly, I think that's true. I think there was  
4 a difference, certainly within Scotland, and the English  
5 haemophilia directors -- I wouldn't say this was the  
6 Scottish haemophilia directors -- but I think there  
7 was -- and I think they [sic - we] are coming to the  
8 Bloom letter soon. There was a distinct unease among  
9 the Scottish transfusion directors and consultants about  
10 the onset of this horrible disease, which by 1983 [sic -  
11 1982] was becoming more and more apparent as indicated  
12 by that MMWR of June and of one that follows two weeks  
13 after this meeting in September.

14 So although it is only a recollection, and I don't  
15 think too much emphasis should be placed on it, there  
16 was unease among the Scottish. And I might comment that  
17 one of the reasons for the unease, particularly in  
18 Edinburgh, is that a year or so before I arrived in  
19 Edinburgh there had been a horrible outbreak of  
20 Hepatitis B in the renal unit among the patients and one  
21 of the fatal victims of that incident was a technician  
22 in the Blood Transfusion Service of Edinburgh, whose  
23 memory was, even though she had died a year or two  
24 before I arrived, still very strong among the scientific  
25 and technical staff of the centre.

1           So what I'm saying is that there was an awareness  
2           that blood transfusion could be dangerous in a special  
3           way in that setting, and on the other hand for entirely  
4           understandable reasons -- and this is most important to  
5           get this balance right -- families of boys who were  
6           being crippled by haemophilia, who had this  
7           cripple-saving and actually life-saving infusion  
8           available to them, were understandably anxious that  
9           their boys could grow up with healthy joints, pain-free,  
10          and were therefore in a dilemma between how dangerous  
11          was this stuff and how effective it was. And it's an  
12          entirely understandable, human reaction. When you see  
13          the immediate benefits -- a little child crying and then  
14          not crying within minutes of receiving an injection and  
15          the remote possibility of it going a bit yellow in a few  
16          weeks' time and HIV wasn't even thought of -- you can  
17          see that there was a lot of pressure dealing with the  
18          acute and not worrying so much about the remote  
19          possibilities.

20        Q. Yes. I quite appreciate that, Dr Boulton. In what you  
21        have said, you have mentioned the chance of having  
22        undamaged joints, and actually something did strike me,  
23        which I haven't asked any of the other doctors, so I'll  
24        just ask you: whether the availability of joint  
25        replacement made a difference in haemophilia care?

1 Presumably joint replacement began to be possible?

2 A. Well, total hip replacement was the first one that  
3 became available and slightly ironically it was realised  
4 that total hip replacement was frequently followed by  
5 thrombosis and so anticoagulants would be given to  
6 prevent the surgery causing thrombosis and pulmonary  
7 embolism. But it was confined to the middle aged and  
8 elderly.

9 Even to this day I don't think an orthopaedic  
10 surgeon would consider replacing the knee joint. Knees  
11 were often particularly badly affected in a young man  
12 of, say, 25, who had severe arthritis due to  
13 haemophilia. Joints have a habit of wearing out after  
14 20 years or so and further surgery being required. You  
15 would have to ask an orthopaedic surgeon but I would  
16 very much doubt if joint replacement surgery would be  
17 certainly featuring in the 1980s.

18 Q. Thank you.

19 THE CHAIRMAN: Dr Boulton, why were you at the meeting  
20 in September 1982?

21 A. John Cash asked me to go.

22 THE CHAIRMAN: You were no longer a haemophilia director by  
23 then.

24 A. That's right. Harking back to my appointment at the  
25 Edinburgh centre and the reason why I went there: I have



1 explained that it had its great attractions because in  
2 contrast with English centres it had a real clinical  
3 link to the surgeons, the heart surgeons et cetera,  
4 et cetera.

5 I loved my haemophilic job in Liverpool. It was not  
6 one which I was wanting to run away from and I missed  
7 the patients when I left there. But I was encouraged to  
8 believe that I would still have contact with the  
9 haemophilia community, which I did, in Edinburgh.

10 Christopher had no problems about them getting to  
11 know me and I think I even addressed a meeting of the  
12 Haemophilia Society fairly shortly after I arrived. So  
13 the reason I went to Edinburgh was so that I could  
14 continue -- and particularly there were possibilities of  
15 research in the transfusion area, which was of interest  
16 to me.

17 But I was known to the haemophilia community in  
18 England. I knew Arthur Bloom personally, and it was  
19 thought not unreasonable that a representative from the  
20 SNBTS be present at those haemophilia directors'  
21 meetings in the early 1980s and I was very welcomed  
22 among them.

23 THE CHAIRMAN: Thank you very much.

24 MS DUNLOP: Another meeting you attended was the meeting at  
25 Heathrow Airport in January 1983 and you also prepared

1 a note of that, which we have. Can we look at that,  
2 please? That's [\[SNB0014033\]](#). Do you remember this  
3 meeting?

4 A. Yes. Well, very vaguely, I'm sorry to say. Yes.

5 Q. It looks as though it might have been primarily, at  
6 least from Immuno's point of view, a promotional  
7 meeting. Would that be right?

8 A. I suspect so, yes.

9 Q. What Immuno was interested in talking about was their  
10 hepatitis-reduced Factor VIII and Factor IX  
11 concentrates. And it's interesting that in Immuno's  
12 notes of the meeting that is overwhelmingly the subject  
13 matter that's recorded, but in your note you have  
14 recorded that too but you have gone on to talk about  
15 a discussion which I think took place in the afternoon  
16 in relation to AIDS. That's page 3. So if we could go  
17 to that, please.

18 Dr Boulton, you were there. At that time, early  
19 1983, was this going to be something that any gathering  
20 of haemophilia clinicians would want to talk about?

21 A. It is very difficult for me, 27 years on, to recall the  
22 chronology. Certainly at some stage around this time  
23 there was a heightened awareness of the distinct  
24 possibility that this awful disease would be transmitted  
25 in blood and there was an awareness that its

1 epidemiology was pretty close to that of Hepatitis B,  
2 which was well-known.

3 I think at this time, 1982/1983, there was still  
4 a reluctance by some haemophilia directors to -- and  
5 I think this is typified by my dear friend Peter Jones  
6 of Newcastle, who was really anxious to get the balance  
7 right, as I said earlier, between relieving the  
8 immediate problems of haemophilia bleeding against the  
9 remote -- I put that in inverted commas -- risk of some  
10 infectious disease later so. So I suspect at this time  
11 there was a spectrum of opinion among haemophilia  
12 directors about where the balance lay.

13 Q. You have underlined, I suppose -- I don't know if it's  
14 your underline. Someone has underlined that there was  
15 a 45 per cent mortality?

16 A. I don't think that's my underlining. I suspect it's  
17 Brian McClelland.

18 Q. Actually, on the first page, there are various  
19 hieroglyphics. It does look as though you were  
20 preparing this note as a form of reporting?

21 A. Yes.

22 Q. I suppose you will certainly have wanted to show it to  
23 him?

24 A. Yes.

25 Q. Can we look on to the last page, please? There is

1 a paragraph there about the possible nature of the  
2 transmissible agents. It certainly looks as though the  
3 writer of this note -- that is you -- belonged to the  
4 school of thought that there was a transmissible agent.  
5 Is that right?

6 A. I think that's a fair assumption.

7 Q. Dr Boulton, you have mentioned --

8 THE CHAIRMAN: Are you leaving the note?

9 MS DUNLOP: Yes, I was going to.

10 THE CHAIRMAN: Can we go back to an answer which I think may  
11 need a little bit of unpackaging.

12 You were asked whether you could recall this meeting  
13 terribly well and you started by saying it was very  
14 difficult to recall it with clarity. At some stage  
15 around now, there was heightened awareness of the risk  
16 and of the common epidemiology between AIDS and  
17 hepatitis. Then you went on to say there was still  
18 a reluctance by some haemophilia directors, for example,  
19 your good friend Peter Jones, who were anxious to get  
20 the balance right. I think that you perhaps didn't  
21 explain to me clearly enough what the reluctance was  
22 about. I can see the point about getting the balance  
23 right but what was the underlying factor that explained  
24 the reluctance?

25 A. I would like to put this in the context of my

1 correspondence and telephone calls with Peter Jones, who  
2 I regarded as a leading haemophilia director in England  
3 and who I knew really quite well personally. Obviously  
4 it's important to get his own views on this, if  
5 possible. But at that time, 1982/1983, Peter, who was  
6 a paediatrician by training and largely dealing with  
7 boys with haemophilia in the Newcastle area, really  
8 wanted to test the thinking about the nature of this  
9 epidemic, or looming epidemic, that seemed to be focused  
10 in America, particularly the west coast, and how  
11 relevant that was to England. I think he was reluctant  
12 in drawing too much of a conclusion that would reduce  
13 significantly the amount of therapy he could give to his  
14 patients.

15 I think it's possibly, particularly because a large  
16 number of his patients were boys, growing up, for whom  
17 he felt a personal responsibility to give them a healthy  
18 adult life, which was dependent upon ever-increasing  
19 supplies of clotting factors. The British, particularly  
20 the English, could not meet the demands and so there was  
21 a need to go overseas, particularly to America, where  
22 there were products available, and although there were  
23 legitimate concerns about the safety of those products,  
24 Peter and many like him were reluctant to abandon the  
25 treatment; in other words, go back ten years or so to

1 the style of treatments usually only cryoprecipitate or  
2 small pooled products which would reduce the dosage that  
3 children could get and return them to a risk of getting  
4 permanent joint damage from their early years.

5 THE CHAIRMAN: Let me make my interest more clear: I can  
6 understand that a person concerned with the care of  
7 haemophilia patients would be very reluctant to give up  
8 a therapeutic product that had established itself as  
9 effective and indeed transformative in caring for the  
10 patient. That's one thing. But the basis on which the  
11 reluctance is maintained can be one or other of two  
12 things. It can either be a failure or refusal to accept  
13 the growing evidence of a competing risk, or it can  
14 involve the acceptance of that risk but preferring still  
15 to get the acute benefits and accept the long-term risk.

16 I'm anxious to know whether the haemophilia  
17 population, and the directors in particular, maintained  
18 a resistance to the growing evidence of a link, the  
19 transmissible agent theory, beyond the point at which  
20 that was reasonable and sensible as scientists. That's  
21 the focus.

22 A. I remember the Haemophilia Society at that time really  
23 quite well. I had very close links with the Haemophilia  
24 Society in my time in Liverpool. I helped found the  
25 local branch. One of the very first haemophilic

1 patients I ever met was a young man in those days,  
2 called John Prothero, who died of HIV/AIDS. He became  
3 a leading light in the Haemophilia Society. I remember  
4 him as a boy of 15. So what I say about the Haemophilia  
5 Society now has to be taken in the light that I knew  
6 them well at that time. And Reverend Tanner, I knew  
7 very well.

8 So we are going into Haemophilia Society history.  
9 Lovely people, very caring, very driving.  
10 Reverend Tanner was a lovely man but very focused on the  
11 care for haemophiliacs, of course, because of his son,  
12 and at that time, the early 1980s, I think it would be  
13 fair to say that the Haemophilia Society was very  
14 reluctant to accept the validity -- they wanted the risk  
15 of nasty things from their blood products to be really  
16 proved before they would agree to reducing the  
17 availability of material for their patients.

18 So there was a drive from the haemophilics  
19 themselves, including the Haemophilia Society, to  
20 maintain the amounts of therapeutic material available.

21 So there was, in other words, a feeling that the  
22 risk was probably acceptable.

23 THE CHAIRMAN: Of course, proof is a difficult concept  
24 unless one knows the standard against which the evidence  
25 has to be measured. What do you understand by proof at

1           this time?

2       A.   The proof would have to be epidemiological.  I mean, the  
3           ultimate proof would be the final demonstration of  
4           Koch's Postulates about infections, and that's why the  
5           chimpanzees in the Immuno report were so interesting.  
6           One of the problems that Immuno had was that there was  
7           a developing shortage of chimpanzees.  In other words,  
8           could we get an infectious agent from person and put it  
9           into another person or animal and demonstrate the same  
10          disease?  So that would be the proof.

11                 So that's not epidemiological, that's just  
12           biological but you can then get an epidemiological  
13           indication that there was a proof.  So there is  
14           a reasonable proof that Hepatitis B was transmittable by  
15           blood products.  That risk was first identified in the  
16           Second World War and became more and more evident,  
17           particularly when the so-called Australia antigen was  
18           discovered.  So when you find the organism, you can  
19           prove.  Until you find the organism, proof has to be  
20           based on epidemiological grounds, which are always  
21           subject to some degree of contention.

22   THE CHAIRMAN:  Yes.  I think I heard on the radio this  
23           morning that American scientists think that they may at  
24           last have identified the HIV virus, but until that  
25           point --



1 A. The ancestral virus?

2 THE CHAIRMAN: Yes. But until that point, on this  
3 hypothesis Koch's postulate wouldn't be satisfied in the  
4 case of the connection between HIV and AIDS, would it?

5 A. I would have to be made familiar with the details. My  
6 understanding is that HIV or proto HIV was a virus that  
7 was transmitted among the higher primate world, was  
8 taken up by people who were in close contact,  
9 particularly hunters and eaters of the meat of the  
10 monkeys, and so particularly for HIV-2, I think, this is  
11 fairly likely but how it got into humankind... The  
12 other thing about HIV is of course its extraordinary  
13 propensity to evolve rapidly. So the viruses we have in  
14 the HIV group now may be really quite substantially  
15 different from the virus that was lurking in the 1950s.

16 THE CHAIRMAN: Thank you very much.

17 MS DUNLOP: Dr Boulton, I wanted to take you to one or two  
18 other events in 1983. We were looking at the discussion  
19 that was held at the meeting at Heathrow Airport on  
20 24 January. You yourself mentioned a moment or two ago  
21 the Bloom letter, and actually there are two Bloom  
22 letters, I suppose, one we have and one we don't. The  
23 one I was going to ask you about is the one that we  
24 don't have, which is your letter to Professor Bloom. Is  
25 that what you were expecting when you referred to it?

1 A. I understood that this was likely to crop up.

2 Q. Yes. We should look, just to explain this issue, at the  
3 reply to your letter, which is [\[SNF0013711\]](#). This is  
4 a letter to you from Professor Bloom, dated 23 May 1983.  
5 We can see that you have obviously written, he doesn't  
6 say when, but no doubt not that long before 23 May and  
7 you have made some suggestions. He is recording what he  
8 perceives as a consensus that it would be  
9 counter-productive to ban the importation of blood  
10 products at this moment. You must also, I think, have  
11 made some mention of deferral of home treatment.

12 Perhaps we could keep that letter and juxtapose  
13 Dr Boulton's supplementary statement, which deals with  
14 this issue. It is [\[PEN0150226\]](#).

15 It's the second, third and fourth paragraphs of this  
16 supplementary statement that deal with this topic,  
17 Dr Boulton.

18 I think it would be fair to say, sir, that a lot of  
19 people have looked for Dr Boulton's letter.

20 A. Including myself.

21 Q. Including you. But we haven't found it. So all you  
22 have been able to do really is to speculate as to what  
23 you might have said.

24 In a nutshell, Dr Boulton, I think what you are  
25 saying is that although you were writing from

1           Edinburgh -- and by that time you were working in  
2           Edinburgh -- you think the focus of your concerns may  
3           have been more to do with the treatment in England and  
4           Wales. Is that right?

5   A. Yes.

6   Q. Do you want to explain a little bit? I know you have  
7           set it out in your statement.

8   A. Also, at the same time, there is another document from  
9           this era, that you may have, which is my memo to  
10          Brian McClelland about a telephone conversation I had  
11          with Peter Jones on 24 May.

12   Q. I was going to go to that after we talked about the  
13          letter, if that's all right with you?

14   A. Yes, fine.

15   Q. Right.

16   A. It's impossible for me at this stage to say precisely  
17          what was in my mind and what made me write those  
18          letters. So anything that follows from me in this  
19          regard must be taken with a degree of, if not  
20          scepticism, at least realising the limitations of the  
21          value of my recollection.

22                 And I find it very frustrating, just as you do, that  
23                 I have no idea really what my wording was for my  
24                 recommendations one and two. There were these two  
25                 recommendations that I made to Arthur Bloom in my

1 letter, which was probably around about 20 May. As  
2 I say, it must be limited. But also his letter to me is  
3 marked "Strictly confidential", as I commented. And I'm  
4 not even sure that the letter I wrote to him, I would  
5 have copied to Brian McClelland. So consequently,  
6 although I would have kept Brian in touch with the gist  
7 of this conversation afterwards, it may not exist in the  
8 SNBTS files at all. If it exists anywhere, it will be  
9 in whatever remains of my personal files, which I left  
10 behind when I left Edinburgh in 1990.

11 But it may turn up one day, and the one thing  
12 I don't want to do is to say something now that is shown  
13 to be completely wrong if it turns up again. And  
14 anyway, I want to be totally honest, as I have got to  
15 be. I have affirmed so.

16 I think it is likely that my concern was directed  
17 towards the English more than in a way to the Scots.  
18 Arthur Bloom, the then director -- lovely man, very  
19 caring physician, really anxious to get things right,  
20 I would say actually little short of brilliance in terms  
21 of his intellect and his ability to see many sides of an  
22 issue -- was right in the middle of this dilemma about  
23 safety from the point of view of unintended horrible  
24 side effects and efficacy, the intended good effect.

25 All I can say is that in this increasing

1 awareness that fractionated blood products, particularly  
2 but not solely commercial fractionated products, were  
3 associated with a risk. Long-term -- remote therefore  
4 in the sense of long-term -- but not remote in terms of  
5 the actual risk to the patient, unintended, nasty side  
6 effects of producing a debilitating and potentially  
7 fatal disease.

8 So I honestly can't say more than that. It looks as  
9 if it was directed towards the English and I would agree  
10 that, but it was not irrelevant for the Scots, which is  
11 why I let Brian have a copy of Arthur's confidential  
12 letter to me.

13 Q. Yes. You have mentioned certain characteristics of  
14 Professor Bloom. It has been suggested to us that he  
15 didn't have a lot of clinical involvement directly in  
16 looking after patients. Is that your recollection or  
17 will you not have known about that?

18 A. I never worked in Cardiff, so I wouldn't be in  
19 a position to make that comment. But however directly  
20 concerned with patient care he was, he was an extremely  
21 caring man. There is no doubt that he was acutely  
22 conscious of his responsibility for the quality of life  
23 of the patients, the care of whom he was ultimately  
24 responsible for.

25 Q. The memo to which you have alluded, about your

1 conversation with Dr Jones, is in fact immediately  
2 preceding document in our database. It's [\[SNF0013710\]](#).  
3 This is 30 May. We can see that, at least in part, the  
4 focus of the conversation that you had had with Dr Jones  
5 is to do with selection of donors, the possible deferral  
6 of donors, but you seem to have had a more wide-ranging  
7 discussion about the state of play as at May 1983.

8 A. Yes. And in fact, the third paragraph, the one that  
9 starts, "He went on ..." I think does throw a little bit  
10 of light on the letter to Arthur Bloom that I wrote, and  
11 his reply to me. Although I spoke to Peter on 24 May,  
12 I wrote this on 30 May, after which I had obviously  
13 received Arthur's letter.

14 It does rather look as if one of my points in the  
15 letter to Arthur indeed was about donor selection,  
16 a subject on which I became more and more expert as time  
17 went on. I do remember very clearly around this time in  
18 Edinburgh -- and I suspect it was around the time of the  
19 Edinburgh Festival in 1982 -- when we, that's the  
20 doctors in the transfusion centre in Edinburgh, were  
21 discussing how to cope with the influx of visitors,  
22 including Americans, who might want to give blood.

23 We were, in other words, sufficiently concerned at  
24 that stage that there was in America a virus that may be  
25 associated with a socio-economic group that was likely

1 to travel and go to exciting things like festivals and  
2 be so minded to donate while they were on site.

3 What could we legitimately do about minimising the  
4 risk that such people might be carrying a virus, which  
5 at that stage was totally unidentified? So admittedly  
6 it was hypothetical and I don't know that it ever had  
7 any tangible results, but what I'm saying is that in the  
8 summer of 1982, we were sufficiently concerned about the  
9 possibility of there being a causative virus or  
10 causative agent for this disease that might embarrass  
11 the quality of our donated blood. So that's just  
12 putting that in context.

13 So we were already facing up to -- and I know that  
14 Brian had good conversations, very productive  
15 conversations, with the gay community in Edinburgh,  
16 about how to get over the message to gay men that if  
17 they were minded to give blood, they should be aware  
18 that there was a potential problem.

19 Brian would be -- and probably has given you better  
20 testimony about that period, but what I'm really saying  
21 is that there was a real concern among the doctors in  
22 the transfusion centre in Edinburgh that this could be  
23 a problem.

24 So consequently, when it comes to being reluctant to  
25 talk about the sexuality of the potential donor in front

1 of you, I think we were somewhat ahead of the game than  
2 Peter Jones in May 1983.

3 Q. You are dating concern in the transfusion world in  
4 Edinburgh to the summer of 1982?

5 A. Yes.

6 Q. So you are sure about that? That's a year before  
7 really?

8 A. Yes.

9 Q. Before all this material?

10 A. Yes.

11 Q. Again, I said to another witness, there is not much  
12 point in asking you to say the same thing as you said in  
13 this memo in different words, but the comment at the end  
14 of the fifth paragraph, that you felt that Dr Jones was  
15 being somewhat less than cautious in his attitude:  
16 "This is not unexpected given his interests ..."  
17 Et cetera, and then the comments in the next  
18 paragraph as well:  
19 "His ears being attuned to only part of the message  
20 which Anne Collins would have given him."  
21 Just in passing, who was Anne Collins?

22 A. She was the transfusion director of Newcastle region.

23 Q. You can see there what you said, Dr Boulton. Is there  
24 anything that you want to amend or explain or should we  
25 just let the memo speak for itself?



1 A. I would rather the memo spoke for itself.

2 Q. Thank you. We should, I think, go back to your  
3 supplementary statement, just to say that you have also  
4 given us some input in it on this topic. That was  
5 [\[PEN0150226\]](#). You cover this in the first paragraph and  
6 you return in the paragraph at the bottom of the page to  
7 the topic of the memo of 30 May, and we can read on to  
8 the next page as well, please.

9 You mention in your supplementary statement the  
10 meeting of October 1983 and I did want to have a brief  
11 look at that as well, more particularly your note of it,  
12 which is [\[SNB0017535\]](#). This one is signed, Dr Boulton,  
13 so there was never any doubt that this was your note.

14 From page 2 on to page 3, there is a discussion of  
15 heat treatment and in fact on page 3 we can see  
16 a comment from Dr Jones:

17 "Any chance of reducing the risk of product should  
18 be taken."

19 Then a section, section 4:

20 "The current situation regarding AIDS."

21 When you said there was no evidence of AIDS entering  
22 the general population, do you think you will have been  
23 quoting from Dr Craske?

24 A. Yes.

25 Q. Right. In one sense, everyone is the general

1 population. It really depends on how you classify  
2 different groups of people.

3 A. Yes. How you select your population.

4 Q. Yes. Then can we look on to the next page, please? You  
5 have recorded that there was a previous discussion on  
6 the use of imported Factor VIII. You have commented in  
7 your supplementary statement that the passage saying  
8 that there was no logic in not using imported  
9 Factor VIII and also --

10 A. I apologise for the double negative.

11 Q. Yes, it is:

12 "The patients should be encouraged not to refuse  
13 imported Factor VIII."

14 You said you felt that was slightly tortuous  
15 phraseology but no doubt you didn't imagine it would be  
16 scrutinised all these years later.

17 THE CHAIRMAN: I think the next sentence worries me even  
18 more:

19 "In view of the AIDS incidence in haemophiliacs in  
20 the USA, it was felt that there was no logic in not  
21 using imported Factor VIII."

22 MS DUNLOP: I do have a question mark beside that as well,  
23 Dr Boulton. What do you think is the logical point  
24 that's being made?

25 A. Well, I wouldn't be surprised if actually, bearing in

1 mind this is 27 years ago, I added too many "nots" in  
2 there, but it would have been more clearly expressed --  
3 and I think this would be a reasonable interpretation of  
4 what I was trying to say -- that, in spite of all the  
5 evidence that was accumulating -- and clearly there is  
6 a big difference in that one year -- my very brief  
7 comment in 1982, considerably expanded in 1983 -- there  
8 was still a reluctance by some haemophilia treaters to  
9 reduce or to stop -- or even just reduce the amount of  
10 Factor VIII of commercial origin for their patients.

11 That's really what it means, that although  
12 Geoff Scott -- I'm sorry, I also apologise for my bad  
13 spelling of "acumen". Geoff Scott was another man whom  
14 I knew very well and I actually can recall the  
15 conversation I had with Geoff about his great concern  
16 for his case and that the local haemophiliacs had become  
17 very, very wary indeed of the use of commercial  
18 Factor VIII. So this is the haemophilic population  
19 around Bristol in 1983.

20 And nevertheless there were still, in other parts of  
21 the country, an anxiety to keep up the use of  
22 Factor VIII until the situation of the epidemiology, or  
23 even better, Koch's Postulates, could be clarified.

24 Q. In the official minutes of the meeting there is also  
25 reference to a point that was made by Dr Chisholm, who

1           was actually the director in Southampton, I think, at  
2           about that time. Was she your predecessor?

3   A. No. Dr Chisholm was one of the four clinical  
4           haematologists in Southampton General Hospital, and in  
5           fact she was on the panel that interviewed me for the  
6           appointment of director of the Southampton transfusion  
7           centre. So we were in the same town but employed by  
8           different bits of the NHS.

9   Q. She is minuted as having raised the question of patients  
10          reverting to cryoprecipitate, and in fact Dr Winter has  
11          explained to us since that that was more of an option  
12          for her because she had a lot of access to  
13          cryoprecipitate or access to a lot of cryoprecipitate.

14   A. The transfusion centre was right on her doorstep.

15   Q. Yes. But it doesn't seem that her suggestion was really  
16          enthusiastically accepted at the meeting.

17   THE CHAIRMAN: Dr Boulton, it's quite difficult to make  
18          sense of your own sentence, I think.

19   A. I agree.

20   THE CHAIRMAN: But one possibility that occurred to me was  
21          that it might be that there was no logic in  
22          discontinuing the use of imported Factor VIII because  
23          there was already a well established incidence of AIDS  
24          among haemophiliacs in the United States of America,  
25          which would suggest that it might have been too late.

1 Did that ever occur as a topic of conversation?

2 A. Yes, I would agree that that is a distinct possibility.

3 MS DUNLOP: Yes.

4 A. Could I just add that there was a feeling that the  
5 epidemic of this horrible condition in America was very  
6 likely to come to Europe but it might take a year or  
7 two.

8 MS DUNLOP: I suppose at that time too, Dr Boulton, the  
9 absolute numbers being described would be seen as very  
10 small in a country as large as the United States.

11 A. Yes.

12 Q. One more matter I wanted to look at. I don't know if we  
13 can carry on. It is coming up for ten past 11.

14 I just thought I should cover this with you,  
15 Dr Boulton, because you referred in your supplementary  
16 statement to 1983 being a peak year for commercial  
17 Factor VIII use in Scotland. I wonder if we could just  
18 have a look at the figures we have in the appendix to  
19 our preliminary report. [\[PEN0131433\]](#). Was it these  
20 figures you were looking at when you made that comment?  
21 Could we go on to 1438, please?

22 Just having a very quick look at 1983. There is  
23 Aberdeen. An amount of FEIBA, and then 1441, 1983 in  
24 Dundee is shown. It looks to be entirely NHS product.  
25 And Edinburgh is on 1444. We can certainly see some

1 commercial product mentioned for Edinburgh but  
2 1.75 million units of PFC product; far and away the  
3 largest there. 1446 is Yorkhill in Glasgow. By 1983  
4 even Yorkhill, which we know had been a big user of  
5 commercial product earlier, it's 1.1 million units and  
6 then Glasgow Royal Infirmary, which is 1449, again some  
7 mention of commercial product, Armour Factorate, FEIBA,  
8 but 1.95 million units of PFC product. Then we should  
9 also look at Inverness, which is 1452. We can see there  
10 statistics for 1983. At least from these tables, it  
11 doesn't look to have been a particularly heavy usage in  
12 1983. I just wondered if you had had those tables in  
13 front of you at the time?

14 A. I don't think I did and the tables are clearly much more  
15 likely to be reliable than my recollection. Could  
16 I just add, of course, that FEIBA, which was of  
17 commercial origin, would have been used specifically for  
18 haemophiliacs with inhibitors and would not have been  
19 given to the general haemophilic population, and would  
20 only have been given to haemophiliacs with inhibitors  
21 under rather dire circumstances, which I'm sure  
22 Christopher would explain in more detail than myself.

23 In other words, you can't really compare the use of  
24 FEIBA -- there was a sort of Scottish equivalent. I see  
25 it's used up there occasionally, of DEFIX or activated

1           DEFIX from the PFC, but FEIBA seemed to have -- and  
2           I think we now know the reason why, but it seemed to  
3           have a particular property of bypassing the inhibitor  
4           block that had developed in these tragically affected  
5           haemophiliacs. So you can't really compare FEIBA with  
6           straightforward PFC or indeed commercial straightforward  
7           Factor VIII usage.

8    Q. I understand. So for a patient with Haemophilia A, who  
9           had inhibitors, who needed treatment, there really was  
10           very little choice?

11   A. There was also a very significant demand of PFC  
12           Factor VIII because some responded to very high doses of  
13           straightforward Factor VIII and those sort of patients  
14           distorted, if you like, the general pattern of  
15           haemophilic usage. And I think there was one occasion  
16           when Christopher had two patients with inhibitors at the  
17           same time. I think it might have been 1984 or so.  
18           Which was a very considerable worry to himself and to us  
19           about how much we could sustain the supply, and I think  
20           that what has to be borne in mind is the specific  
21           problem of the Factor VIII deficient patient with strong  
22           inhibitors, and about 5 to 10 per cent of patients  
23           develop that complication.

24   Q. I see. Thank you, sir. That would be a good moment at  
25           which to break.

1 THE CHAIRMAN: I don't know how you want to use Dr Foster's  
2 data but his table 19, of course, gives information on  
3 the pattern of usage of commercial and if it is  
4 accepted, it might make a very acute picture but we will  
5 leave it until after the break.

6 MS DUNLOP: Thank you.

7 (11.13 am)

8 (Short break)

9 (11.37 am)

10 THE CHAIRMAN: Yes, Ms Dunlop?

11 MS DUNLOP: Thank you.

12 Dr Boulton, I wanted to ask you some questions about  
13 your involvement in supply of products for the treatment  
14 of patients with haemophilia in Edinburgh. First of  
15 all, I wanted to ask about the arrangements that there  
16 were for obtaining commercial product, if that was  
17 required. Can we look first at a document [\[PEN0150478\]](#)?  
18 This is a meeting at Lothian Health Board, I think, on  
19 14 January 1981 and you were at that. As was Dr Ludlam  
20 and also Dr McClelland, and Dr Parker. He was another  
21 haematologist, as I understand it, from the Royal  
22 Infirmary.

23 THE CHAIRMAN: There are two Parkers.

24 MS DUNLOP: Sorry, Dr A C Parker, the "he". I can't  
25 remember his first name. Was it Anthony?



1 THE CHAIRMAN: Alistair.

2 MS DUNLOP: Thank you. Alistair Parker. We can see

3 Dr Ludlam saying that:

4 "PFC were providing intermediate Factor VIII. The  
5 cost of this was met by the Blood Transfusion Service of  
6 the Common Services Agency."

7 So the health board wasn't having to fund the  
8 haemophiliac service, but that there would be cases  
9 where commercial Factor VIII had to be bought. There  
10 had been three cases in 1980. There is a discussion  
11 about supply of PFC products. That's paragraph 2.  
12 Dr Ludlam in paragraph 3 has provided an estimate of his  
13 requirement for the coming year. Then paragraph 4,  
14 please. We see that:

15 "With commercial Factor VIII, Dr Ludlam has pointed  
16 out the danger of liver disease, the cause of which  
17 [was] at present being investigated."

18 Then paragraph 5. Dr Cash and Mr Myers, presumably  
19 from the health board, had discussed the purchasing of  
20 commercial blood products in the past, and all  
21 commercial products were ordered through the regional  
22 transfusion service. Then can we go on to the next  
23 page, please.

24 So from this it would be correct, would it, to have  
25 an understanding that where a haemophilia clinician in

1           Edinburgh needed commercial product for a particular  
2           reason, it would have to be ordered by you, the  
3           regional transfusion centre. That seems to be the  
4           arrangement that obtained, indeed before this meeting,  
5           and that was to continue? Is that your recollection?

6    A.   I regret to say I have no recollection of this  
7           whatsoever.

8    Q.   Right. I suppose, if commercial material was needed for  
9           a particular patient and was then ordered in accordance  
10           with this procedure, it wouldn't really be much of  
11           a question of storage because it would be needed more or  
12           less immediately, but when it arrived, where would it  
13           go?

14   A.   I have no recollection.

15   Q.   Right. It looks as though -- and this is material that  
16           Professor Ludlam has provided us -- that arrangement  
17           then changed. Can we see [\[PEN0150480\]](#).

18           Part of the reason for looking at the minutes of the  
19           UKHCDO meeting earlier this morning, Dr Boulton, was to  
20           apprise ourselves of what the arrangements were in  
21           England, and we can see from this letter, which is  
22           Dr Ludlam to Dr Brough on 19 April 1983, that there was  
23           a change at that time. Do you remember any of this  
24           either, the change?

25   A.   Although I'm quoted by Christopher in that letter, and

1 I'm sure quite justifiably, 28 years ago, I plead lack  
2 of recollection.

3 Q. Yes. Actually we have seen this before but we can note  
4 that Dr Ludlam was saying that the new arrangement would  
5 bring Edinburgh into line with arrangements that prevail  
6 in the rest of the United Kingdom. So that looks to be  
7 the position as far as commercial product was concerned.

8 As far as NHS product goes --

9 A. Can I just comment that whatever the details of who was  
10 ordering what, my recollection is that the Lothian  
11 Health Board actually carried the tab and not the SNBTS,  
12 but that may not be fully correct.

13 Q. Yes. Dr Ludlam is saying:  
14 "As before, I shall still be accountable for the  
15 financial cost."

16 A. Which I think is consistent with what little bit I do  
17 recollect, but I have no recollection of the details of  
18 the meetings behind this correspondence.

19 Q. So in other words it would come from his budget,  
20 whatever his budget was, or his department's budget?

21 A. I think so, yes.

22 Q. Which would be health board money?

23 A. Yes.

24 Q. Yes. Can we look at some correspondence in relation to  
25 NHS product. The first letter is [\[SNB0015199\]](#).

1           This is a letter from you to Dr Ludlam of  
2           10 May 1982 and you had in the transfusion centre  
3           a table of haemophilia home therapy patients and the  
4           amount of Factor VIII that had been issued in the first  
5           quarter of 1982. You are recording concern at the  
6           amount.

7           I think you are really recording that there is a gap  
8           between issue and usage. So you are saying that you are  
9           officially issued, in the first quarter of 1982, with  
10          261,530 units, and the total for the first quarter that  
11          had been used on the home therapy programme was 206,800.  
12          And it has been necessary in fact to get some more from  
13          Inverness.

14          Then you go on to say that:

15          "The allocation is actually based on the amount of  
16          plasma we supply to PFC."

17          A calculation of that, you have said, would produce  
18          about 300,000 units, which is the amount you received  
19          back, plus some retained for stocks. Then you seem, on  
20          the second page, to be putting down, I suppose, some  
21          markers about what you thought needed to happen.

22          The first thing, Dr Boulton, is: do you remember  
23          there being a calculation of how much each region in  
24          Scotland was to receive by way of issue from PFC; that  
25          PFC would say, "You will be issued with ..." and there

1 would be a figure?

2 A. Quite honestly, I have no recollection really of writing  
3 this letter. I do recall the, I think very fruitful  
4 discussions I had with Christopher about the general  
5 problem of supply.

6 In answer to your specific question, I think I was  
7 too remote from the national scene in Scotland to be  
8 able to comment about the other centres in detail.  
9 Clearly, we clawed back some from Inverness, and  
10 presumably Inverness may have been reluctant to let us  
11 have it but were content to let us have that amount.  
12 That's as much as I can say about the regional  
13 distribution and reallocations. I can say no more  
14 detail than that.

15 Q. Do you remember the problems starting to emerge? Do you  
16 remember being anxious about meeting the demand?

17 A. Oh, yes. Yes, as a concern arising. And until I had  
18 seen these letters, I would not have been able to put  
19 a precise chronology to that but I think, whereas  
20 perhaps in the first year or so -- in other words,  
21 1980 -- I was relatively reassured that the expanding  
22 programme for caring for haemophiliacs in Edinburgh  
23 could be met by the SNBTS, perhaps by this time we were  
24 getting anxious about the specific problem in Edinburgh.  
25 But I think then I was conscious of the thing I referred

1 to earlier today about the magnetic effect of having an  
2 effective haemophilia centre in one town drawing the  
3 customer.

4 Q. Right.

5 THE CHAIRMAN: No doubt there are lots of special factors  
6 that come into it.

7 A. Yes.

8 THE CHAIRMAN: I know, for example, that Inverness, for  
9 a considerable period had two very heavy users.

10 A. Yes.

11 THE CHAIRMAN: And if one of them happened to be attracted  
12 to Edinburgh for some reason or other, treatment or  
13 education, then, of course, there would be the point you  
14 make in paragraph 4, that perhaps they should come with  
15 their allocation in effect.

16 But leaving that aside, do you remember this regime  
17 in operation and do you remember it changing from time  
18 to time? For example, I know that at one stage  
19 allocation was on the basis of population. Do you  
20 remember --

21 A. I always struggled with the total heads of population  
22 because it already seemed to me to be much more sensible  
23 to do it per haemophilic, and I felt that all my life.  
24 All my life in haemophilia, I felt, even though there  
25 are considerably different demands of each haemophilic

1           depending upon their clinical status, it was better to  
2           do it -- and by this time we were getting quite a good  
3           idea of the total amount of at least severe  
4           haemophiliacs in the UK. So I always had been uneasy  
5           about it going on per total head of population. That's  
6           just a general comment. I can't at this stage recall  
7           detailed concerns.

8   THE CHAIRMAN: If we look at the regime you mention here,  
9           proportionate to the contributions of plasma, of course,  
10          many different factors could influence what a region was  
11          prepared to send.

12   A. Absolutely, yes.

13   THE CHAIRMAN: Such as?

14   A. Well, such as the nature of the other demand from the  
15          clinicians in the surgical units, in the heart units, in  
16          the emerging -- and interestingly, within the  
17          haematology camp -- the emerging far greater efficacy of  
18          leukaemia therapies, which required blood products.

19                So we had an increasing competition from platelet  
20          production from our donations, the same raw materials.  
21          So there are all sorts of other directions that blood  
22          was being used for. So if you had two or three big  
23          hospitals in a region like the West of Scotland, you  
24          could see that they had other patients than haemophilia  
25          to be concerned about, and that was also true, of

1 course, in east Scotland.

2 THE CHAIRMAN: I shouldn't look for a simple solution then,  
3 Dr Boulton?

4 A. Yes.

5 MS DUNLOP: Dr Boulton, I appreciate it's a very long time  
6 ago and I quite understand it is very difficult to  
7 recall the detail of any of this, but perhaps just for  
8 the record, to look at the next letter, which is  
9 [\[SNB0015205\]](#). This is, I think, 10 August 1982, rather  
10 faint but we have other copies. You are apologising for  
11 repeating yourself but it looks as though you are really  
12 making the same points. In July -- I'm not sure,  
13 I think that's perhaps 350 bottles were used:

14 "Which is approximately 160 per cent of our monthly  
15 allocation."

16 It looks as though, as far as where the stock was,  
17 some of it will have been in or around the ward, and the  
18 Speywood material was in your deep freeze. But you were  
19 feeling a need to meet, which you did on 23 August -- we  
20 have a note of the meeting. That's [\[SNB0015207\]](#). You  
21 began by noting the stock situation and, as recorded in  
22 the note, you were already in August eating into  
23 the September stock.

24 I wondered from paragraph 4 what was meant by the  
25 deduction at source effect. Do you remember?



1 A. 4(c)?

2 Q. Yes.

3 A. I can't recollect the details of this concept, and I'm  
4 having some difficulty in recollecting it right now, but  
5 I think that one of the problems that would be in  
6 people's mind -- depending upon whether they were  
7 a blood transfusion scientist, blood transfusion doctor,  
8 a haemophilia carer doctor -- is how much you could  
9 expect a kilogramme or 1,000 kilogrammes of plasma to  
10 yield. The deduction at source would have been the  
11 amount of Factor VIII that came out of a kilogramme of  
12 plasma. That was not used for direct treatment but was  
13 used for other purposes, such as quality assurance, to  
14 see how much Factor VIII there was in that particular  
15 batch, and other tests that might have been conducted  
16 which meant that there was an inevitable reduction of  
17 the final yield that reached the patient bank.

18 Q. Right.

19 A. I'm not certain but I suspect that that's what that  
20 means. So in other words, not every unit that was taken  
21 out of a gramme or kilogramme of plasma would have ended  
22 up in a patient. You wouldn't have expected it to  
23 because there were legitimate other uses on the way.

24 Q. Right. Then Dr Ludlam is setting out his position in  
25 section 5. On to the next page, please. It's obvious,

1 Dr Boulton, that from the time of you and Dr Ludlam  
2 arriving in 1980, usage, particularly for home therapy,  
3 has increased very considerably. Is that right?

4 A. It looks like it. I'm sure that's right, yes.

5 Q. Yes. Then [\[SNB0015213\]](#). You obviously sent the minutes  
6 of the meeting to Dr Ludlam. I don't think we have had  
7 a letter but he wrote back.

8 A. Yes.

9 Q. 1 September. Then you replied on 3 September  
10 [\[SNB0015215\]](#). I suppose you are really the middleman in  
11 both directions, Dr Boulton, aren't you? Because you  
12 are involved in how much plasma is going from collection  
13 in Edinburgh and the southeast to PFC, and then you are  
14 involved in trying to assist Dr Ludlam in getting the  
15 amount he needs with which to treat his patients. Is  
16 that right? Was that your role?

17 A. I think I felt at the time that the prior case was for  
18 the treatment of the patients, to give them as adequate  
19 an amount as we could. Therefore responding to  
20 Christopher's needs.

21 I fully understood Christopher's desire to maximise  
22 the treatment for his patients and I had a great deal of  
23 sympathy with that because, after all, we are in this  
24 world to make patients' lives as best as possible and  
25 haemophilia is a horrible disease, and it's not just the

1 patients that suffer but the families, it's their  
2 friends, and society has a big responsibility for the  
3 care of such people.

4 I'm very much on the side of maximising the  
5 opportunities for those people in whatever way you can.  
6 For that reason, it was therefore not unreasonable for  
7 the Blood Transfusion Service to maximise its own  
8 efforts.

9 So in a way I was the middleman and indeed I guess  
10 I was appointed to be so because I was the first actual  
11 haematologist, let alone a haemophilia doctor, to be  
12 appointed to the Edinburgh BTS consultant grade.

13 I guess, for their sins, that was the attraction for  
14 me to be appointed there. Furthermore, I was  
15 specifically put on the blood issue side. That was my  
16 job within the centre. To be the consultant in charge  
17 of the blood bank and all the things that were issued  
18 from it, which included, plasma, platelets and PFC  
19 Factor VIII.

20 So clearly I was involved deeply with Christopher in  
21 his work but at the same time I had a responsibility for  
22 maximising the use of donor materials as much as  
23 possible as well.

24 So yes, I was the middleman but I certainly  
25 recognised that there were limitations and Christopher

1 was very legitimately pushing us on that because that  
2 was his job, and it was my job to help him as much as  
3 possible but within the constraints that I was put under  
4 from the supply side.

5 Q. Just to follow the chain of events into December, can we  
6 have [\[SNB0015219\]](#).

7 You are reporting to Mr Watt. We can see that two  
8 other centres in Scotland have chipped in with offers.  
9 Do you have any memory, Dr Boulton, of what amount of  
10 stock you would have wanted to have at any given time?  
11 By that I'm thinking of a length of time. Would you  
12 have wanted to have a month's stock, six months' stock,  
13 a year's stock? What would have made you feel  
14 comfortable?

15 A. My recollection is it would be somewhere between one  
16 month and three months in stock. And it is only  
17 a recollection. I think it was nearer three months than  
18 one month, but that I think was likely, and maybe you  
19 are going to ask me this in a minute: I think there was  
20 a specific circumstance behind this, which is that  
21 Christopher had at least one if not two patients with  
22 inhibitors that were demanding a lot of material at that  
23 particular time, but they are not referred to in these  
24 particular letters by name.

25 Q. We can see that cryoprecipitate may be being used a bit

1 more. It's recorded in the second paragraph,  
2 notwithstanding its drawbacks, and we have heard quite  
3 a lot about that.

4 A. Yes.

5 Q. You wrote again on 29 December. That's [\[SNB0015221\]](#).  
6 I think this may be the two patients to whom you were  
7 referring.

8 A. I think that's right, yes.

9 Q. There does come through from this correspondence,  
10 Dr Boulton, an underlying reluctance to have to resort  
11 to commercial material. Is that a sentiment --

12 A. Yes.

13 Q. -- both parties shared?

14 A. Yes, I think so.

15 Q. I don't think it's necessary to go to the minutes of  
16 this meeting but I think we know that there was a joint  
17 meeting on 21 January 1983 between the haemophilia  
18 directors and the SNBTS directors with government  
19 officials in attendance, and that this topic cropped up.  
20 That is purchase of commercial material in Edinburgh  
21 cropped up. We know from Dr McClelland's handwritten  
22 notes that he was thinking at the meeting it was  
23 something he was going to have to speak to you about.  
24 Do you remember all of that in the early part of 1983 or  
25 is that a bit of a blur?

1 A. I actually do remember that there were these concerns  
2 and when I saw this correspondence, the bell that went  
3 in my mind was fairly loud. Because I do recollect that  
4 Christopher and I were discussing in some detail the  
5 specific needs of the patients and how best we could  
6 meet them. So to be faced with this again was  
7 actually -- even though so long ago, I do remember. But  
8 that doesn't mean to say I can recollect the details.

9 Q. No. And it looks as though, after that meeting  
10 in January 1983, there was some sort of expectation that  
11 everyone was going to sit down and resolve matters  
12 around a table, but that probably didn't happen, if we  
13 read [\[SNB0015194\]](#). This is Dr McClelland writing to  
14 Dr Cash.

15 In short, Dr Boulton, I think what comes across is  
16 that the home therapy programme has been expanding and  
17 that the haemophilia centre at the Royal Infirmary was  
18 a heavy user of NHS concentrate by this point. I don't  
19 think that can really be disputed and that obviously led  
20 to a bit of tension for you and --

21 A. It was not a problem for me.

22 Q. No.

23 A. But it was within one's professional duty to do one's  
24 best to meet the demand that was legitimate, but clearly  
25 there were wider implications for that demand.

1 Q. Dr Boulton, can you just explain to us, around about  
2 this time, 1982 and into 1983, what was your daily job?  
3 What were your tasks you had to do to make sure that  
4 everybody who needed material, whether blood or blood  
5 products, was supplied?

6 A. I was one of three, then four, consultants in the  
7 centre. My main work was to be the consultant in charge  
8 of -- and this is an interesting term -- of the blood  
9 bank. In other words, the blood bank, which distributed  
10 to -- not just the Royal Infirmary but other hospitals  
11 that were served by the labs of the Royal Infirmary; to  
12 supply them with all the blood products that came our  
13 way from the donors.

14 So it would be whole blood, it would be red cells,  
15 it would be platelets, it would be plasma and it would  
16 be cryoprecipitate, and sometimes even cryosupernatant,  
17 for the patients in the Royal Infirmary. There were  
18 four other hospitals in the southeast region, which  
19 included the Western General Hospital and Peel, Melrose,  
20 that had their own blood bank, to whom we just supplied  
21 the raw materials and they selected the patients.

22 But for about two thirds or 70 per cent of the  
23 southeast region's patients, the blood transfusion  
24 centres own laboratory selected the patients who were to  
25 receive that. That included, for example, the very

1 exciting development in the cardiac surgical unit about  
2 blood supply for heart surgery, which was at that time  
3 quite intensive. So I would go along to audit meetings  
4 in the cardiac departments, I would be very familiar  
5 with the use of blood for surgical purposes. I would be  
6 pretty familiar also with the use of blood for the  
7 leukaemics.

8 At the same time there was a small laboratory in the  
9 Edinburgh centre that conducted tests of coagulation on  
10 patients, not haemophiliacs. That was clearly  
11 Christopher's section. But in patients in intensive  
12 care unit, in the cardiac unit and elsewhere, who were  
13 in need of specialist advice concerning transfusion of  
14 appropriate products.

15 So we had a laboratory that did a clinical service  
16 and the same laboratory was also responsible for  
17 conducting quality control exercises on plasma and on  
18 other materials derived from PFC.

19 So it was actually quite a complicated set of  
20 responsibilities that I had. I did not have primary  
21 responsibility for donor selection and I did not have  
22 primary responsibility for the transplant immunology  
23 work that was going on in the centre at the same time.  
24 Although I was again familiar with those sort of  
25 problems.



1 Q. So much of what you are describing as the distribution  
2 part of your job?

3 A. Yes.

4 Q. What about the input into the centre in Edinburgh? Were  
5 you projecting on a daily or a weekly or a monthly basis  
6 what you were going to need and sourcing that, as far as  
7 blood products were concerned, from PFC? You would be  
8 reporting to PFC, "We need for June the following  
9 amounts"?

10 A. It wasn't as precise as that, and to some extent I think  
11 Brian was slightly more in that particular field because  
12 he would be part of the SNBTS directorate meetings at  
13 which John Watt would also be present. So I might get  
14 from Brian, the trend from PFC. Also I would be given  
15 notice of the periods when PFC had to be shut down,  
16 sometimes for two or three months, for refurbishment or  
17 upgrading or that sort of thing, and there would be  
18 a period in advance whereby there would be a stock  
19 piling process going on. So I would be involved but not  
20 necessarily at that close liaison level with PFC.

21 Q. Professor Ludlam described the van coming from PFC on  
22 a monthly basis. Does that ring a bell for you?

23 A. Yes, but not -- yes, yes.

24 Q. But sometimes not very regular or sometimes more than  
25 once a month?

1 A. To carry on that figurative analogy, it didn't ring very  
2 loudly outside my door.

3 Q. Right. When it came, did it just, as far as blood  
4 products are concerned, contain your allocation?

5 A. Of PFC-derived materials like Factor VIII and Factor IX,  
6 et cetera?

7 Q. Yes.

8 A. Yes, I think it probably would have done.

9 Q. Right. We have spoken about commercial products. So  
10 I suppose, if the allocation was running very low, if  
11 you were looking at your own stocks and you could see  
12 the allocation was running low or if there was  
13 a particular patient with a particular problem and you  
14 had to source some commercial material, would it be you  
15 or somebody in your department who would then actively  
16 take the steps to do that?

17 A. I don't recall being directly involved in the ordering  
18 of any commercial materials. So, although I would be  
19 aware, as indicated in some of these letters, of a surge  
20 in demand, and also to some extent aware of the reason  
21 for that surge in demand -- there would be one or two  
22 special patients or surgery had been planned or  
23 whatever -- I would be able to respond in terms of what  
24 the SNBTS could provide in the way, firstly of  
25 cryoprecipitate, second of PFC and thirdly perhaps the

1 Factor IX concentrates that might have been made  
2 available. And clearly from this letter, I was aware of  
3 materials like Speywood, FEIBA, et cetera. Speywood, as  
4 far as I recollect, was porcine Factor VIII. So those  
5 materials I would have been aware of but quite honestly  
6 I don't have any recollection of being involved  
7 specifically in the ordering pattern of those.

8 Q. Was there somebody who was your opposite number in the  
9 West of Scotland, who did the same job as you are  
10 describing for us but for the West of Scotland?

11 A. I think that was Bob Crawford, the late Bob Crawford.

12 Q. And he was based at Law, was he?

13 A. Yes.

14 THE CHAIRMAN: Was the structure exactly the same?

15 A. No, I don't think one can really compare the structure  
16 at Law very closely with that of Edinburgh because the  
17 only crossmatching activities that they would do would  
18 be for non-haemophilic patients, but for patients  
19 requiring blood cells that had funny antibodies. So  
20 they would be a sort of specialist laboratory for  
21 patient distribution.

22 MS DUNLOP: There has been reference to a daily order in  
23 fact, going to the centre at Law. And I think at one  
24 time also Dr Davidson may have been involved. He may  
25 have been --

1 A. I cannot answer for the practices that were going on in  
2 the West of Scotland.

3 THE CHAIRMAN: Was there a separate haematology department?

4 A. I think I may have described the --  
5 Glasgow Royal Infirmary had two excellent haematologists  
6 in John Davidson and Isobel Walker, who were responsible  
7 for that part of my job analogous to the distribution of  
8 red cells, platelets and liquid plasma, frozen plasma.  
9 But they were Glasgow, West of Scotland Health Board  
10 employees, so to speak. So they were in the hospital.  
11 I was a bit of a hybrid.

12 THE CHAIRMAN: So your function was really rather more  
13 distributed in the Glasgow area, with the Royal  
14 haematology department carrying some of your  
15 responsibilities and Law carrying others?

16 A. Yes. That situation is more like England. You can see  
17 the attraction for me as a relatively young man coming  
18 to a job with these diverse responsibilities. There  
19 were similar situations as far as I recall in Dundee and  
20 Aberdeen. They were more like Edinburgh than West of  
21 Scotland.

22 THE CHAIRMAN: Just before I forget, there was a question  
23 I wanted to ask you. Where was Dr Mitchell located?

24 A. West of Scotland, Law.

25 THE CHAIRMAN: At Law?

1 A. Yes.

2 THE CHAIRMAN: And Dr Wallace --

3 A. Dr Wallace preceded him at Law, yes.

4 THE CHAIRMAN: Yes.

5 MS DUNLOP: Dr Boulton, we should look at the statement that  
6 you provided as well, which is [\[PEN0150054\]](#). I think  
7 there are really only two points that you cover in this  
8 statement that we haven't discussed this morning. Your  
9 answers are shown on this copy of the schedule, which  
10 was sent to you, and they are underlined.

11 A. Oh, I see, yes. Yes.

12 Q. I just wanted to ask you in the first place about your  
13 reference to self-sufficiency. You say:

14 "Scotland had become largely self-sufficient by the  
15 early 1980s but some commercial product was still being  
16 used in Edinburgh and possibly more so in Glasgow."

17 At the end of your answer you refer to "absolute  
18 self-sufficiency". I don't want to create the  
19 impression that we are hung up on self-sufficiency. We  
20 have asked a lot of people about it, but what do you  
21 mean by "absolute self-sufficiency"?

22 A. Something in which a community would be able to supply  
23 every single vestige of blood or blood products from  
24 within that own community, with no dependence upon  
25 outside agencies at all.

1 Q. We know that the Australians for example, in the early  
2 1980s, banned the import of commercial blood products.

3 A. Yes.

4 Q. Would a country ever be able to achieve absolute  
5 self-sufficiency, as far as blood products are  
6 concerned, without a measure of that nature, without  
7 there being an actual ban on importation of commercial  
8 material?

9 A. Gosh. I think it would be cloud cuckoo land. What  
10 I have described as "absolute", it would be cloud cuckoo  
11 land. If we again go outside the world of haemophilia,  
12 there will be patients who require red cells of an  
13 extraordinarily special nature. There is a funny blood  
14 group called O-Bombay who appear to be blood group O.  
15 Who could therefore receive anything, but actually have  
16 a powerful antibody against practically everybody else  
17 in the world except for some people of their racial  
18 origin, which is India. That's why it's called  
19 O-Bombay. So if we in Scotland had a patient with  
20 O-Bombay, it would be very difficult to find a Scot who  
21 could give that blood.

22 So therefore, on those grounds alone, absolute  
23 self-sufficiency is not achievable.

24 In the world of blood transfusion, there is a need  
25 for communality. There is a pretty good WHO

1           organisation for blood transfusion. It's a little bit  
2           unrealistic in some ways but it tries very hard.  
3           Because obviously the world has to be self-sufficient.  
4           It has to come from humans somewhere -- or occasionally  
5           from dogs and cows and pigs, if you are talking about  
6           porcine Factor VIII -- but otherwise we have to be  
7           self-sufficient within the world.

8           Clearly now, with the development of recombinant  
9           technology, it is a lot different. I think the majority  
10          of haemophiliacs in this country who require factor VIII  
11          get it from recombinant sources, so they don't get any  
12          human sort at all. But in those days before it became  
13          available, they had to depend upon human-type material.

14          And of course we in Britain these days are dependent  
15          upon plasma and things like anti-D from overseas because  
16          of the ban as a result of the BSE tragedy. So  
17          self-sufficiency is a lovely ideal. It is one to which  
18          we should aspire at all times but we have to be balanced  
19          about it.

20    Q.    The other answer I just wanted to perhaps just note in  
21          your statement on page 7, Dr Boulton. I'm not sure if my  
22          pagination is different. It is answer (vii). So  
23          I think we need to go back if we could. It is actually  
24          2(vii). It's this mention you have made -- I wanted to  
25          note it -- of what I understand to have been a system of

1 dedicated patients to a batch, not a batch to a patient  
2 but patients to a batch?

3 A. This is a good idea of Christopher's, that in order to  
4 reduce the patient exposure to multiple donors, it would  
5 be sensible to batch the PFC materials that came to us.

6 This tragically was after it became established that  
7 PFC Factor VIII in the preheat treatment days could be  
8 contaminated with HIV. So consequently, with that  
9 established risk, in order to reduce it, if a patient  
10 required a treatment from a batch of PFC Factor VIII,  
11 until that batch ran out, that patient should only  
12 receive material from that batch. At the same time  
13 there may be another batch or two in stock and materials  
14 from that would be reserved for other patients.

15 So instead of the one patient arbitrarily, when  
16 treatment is required, getting a vials of Factor VIII  
17 from two or three of the batches in stock, it was  
18 a single batch that they were exposed to and that was  
19 a good idea in an attempt to reduce the amount of donors  
20 to whom they were exposed.

21 Q. In conclusion, Dr Boulton, I want to ask you one final  
22 point and it's more a reflective matter again.

23 Periodically in your testimony, you have spoken  
24 about people, particularly in the 1982/1983 period,  
25 haemophilia clinicians, who were anxious to maintain the



1 huge improvement in quality of life that had been  
2 achieved for patients with haemophilia, and you have  
3 also talked about how that sentiment persisted in the  
4 face of some of the reports that were coming, initially  
5 from America and then perhaps closer to Britain.

6 If you think of the people, the haemophilia  
7 clinicians who were at the very forefront of these  
8 developments, wanting to maximise home therapy and use  
9 American concentrates to do so, and perhaps telling  
10 their patients that boys with haemophilia would grow up  
11 normally, it has been suggested to us that such  
12 clinicians jumped the gun. Do you agree with that?

13 A. The onset of the AIDS tragedy, which really became  
14 apparent -- the first glimmerings came home, I guess, in  
15 early 1982 -- the danger is that one can sound terribly  
16 wise in retrospect. I think it would be fair to say  
17 that I referred earlier to Howard Davies being a wise  
18 man. So his concern was probably directed against the  
19 hepatitis risk but quite possibly he would have been  
20 concerned about the possibility of other viruses being  
21 present.

22 There is no doubt that the HIV tragedy, more than  
23 the Hepatitis B work of the 1970s, alerted -- it was  
24 a sea change in the community of blood transfusion  
25 throughout the world. It is easy for people like me in

1       retrospect to say in 1981 we should have been much, much  
2       more cautious and they were jumping the gun. It is easy  
3       for us to say that now. My recollection, a slightly  
4       guessed recollection, is that throughout this period of,  
5       say, 1982 to 1984 there was an increasing awareness  
6       among the haemophilia clinicians that actually the ice  
7       was getting thinner and that our patients were being  
8       more and more exposed to long-term risk.

9           I think actually it was not just the HIV possibility  
10       but also this mysterious non-A non-B hepatitis. When it  
11       became apparent that non-haemophiliacs who had been  
12       transfused and had an episode of jaundice a decade or  
13       two before now had severe liver disease. Their spleens  
14       were big and they had disordered liver enzymes. Then  
15       came the idea of looking at the livers of haemophiliacs.  
16       One big problem: they would bleed so you had to give  
17       them Factor VIII, rather ironically.

18           Nevertheless, people like Eric Preston in Sheffield  
19       did a study, and I think it was 1983, 1984, which showed  
20       that haemophiliacs, in spite of not being jaundiced and  
21       perhaps never having a history of an episode of  
22       jaundice, had severe cirrhosis and were impending for  
23       liver disease.

24           So it wasn't just HIV that stimulated this, although  
25       it was a major point, it was also the awareness of the

1 long-term effects of non-A non-B which eventually was  
2 characterised as Hepatitis C in 1989/1990, and which the  
3 transfusion service has been extraordinarily successful  
4 in virtually eliminating from risk.

5 So I don't like the phrase "jumping the gun".  
6 I think that it's a reflection of the period. Coming  
7 back, there was also an accusation -- and it was an  
8 accusation -- from one British transfusion director to  
9 another that by introducing a test for Hepatitis C  
10 before the rest of the country, that person was jumping  
11 the gun. So it wasn't just an accusation to haemophilia  
12 directors, the best way I can put it is: are we a team  
13 coordinated with a strategy that when a new test becomes  
14 available for a blood product -- as the HIV did  
15 in March 1985 from America, September 1985 for  
16 Great Britain -- are we a team in which we do all the  
17 preliminary work in planning that test introduction?  
18 Are we a team in which we are all coordinated throughout  
19 Britain? Or is each regional centre allowed to do its  
20 own thing?

21 Given human nature, among the 15 or so regional  
22 transfusion directors throughout the UK, there were one  
23 or two who broke rank, and there was some concerns.

24 On the other hand, why did they break rank? They  
25 didn't break rank because they wanted to have

1 a grandiose star for themselves. They did it for the  
2 sake, the concern of the patients who were going to get  
3 their production.

4 So breaking the ranks, jumping the gun is not done  
5 out of a sense of irresponsibility. If it is done at  
6 all, it is out of a sense of concern and, "Playing the  
7 team is all very well, but I'm so concerned that my  
8 patients are not going to benefit. And actually my  
9 patients will be put in danger unless we do this." We  
10 don't need to go into much more detail but we know that  
11 in other countries doctors have been sent to prison  
12 about the HIV status [sic - situation].

13 Many of us felt that there but for the grace of God,  
14 go I. We, people like myself, people like Christopher,  
15 have a real ache in our hearts, which is that 1,500  
16 haemophiliacs have died; a very substantial proportion  
17 of the haemophilic population in Britain have died as  
18 a result of the material that we gave them.

19 So consequently you can see why jumping the gun was  
20 a very tempting thing to do, and although I personally  
21 don't think I did jump the gun, I can jolly well  
22 understand the feelings of those who did want to jump  
23 the gun. Because the greatest tragedy in my  
24 professional lifetime was what has happened to  
25 haemophiliacs. The variant CJD tragedy, which also

1 occurred during my lifetime, is awful in the same level  
2 of how it has affected individuals, but on a scale of  
3 numbers, where we have hundreds compared with thousands  
4 of haemophiliacs, you know, one's heart -- going back,  
5 John Prothero was a man I really liked and I still miss  
6 him at an individual level. So jumping the gun -- okay,  
7 but I think I have said enough.

8 Q. Thank you.

9 THE CHAIRMAN: I have heard the expression used that this  
10 was the worst tragedy, and I wouldn't in any  
11 circumstances want to understate it, but one does have  
12 to remember that there was thalidomide.

13 A. Absolutely.

14 THE CHAIRMAN: One does have to remember that there are  
15 other patient populations in the wider community who may  
16 feel that perhaps they are deserving of as much sympathy  
17 as the haemophiliac. For example, a very large group of  
18 people with compromised brain functions resulting from  
19 the circumstances in which they were born. Should one  
20 be a little cautious perhaps in emphasising --

21 A. I was quite careful to say that in my professional  
22 lifetime it was the biggest tragedy. I remember the  
23 thalidomide very well. In fact my mother-in-law took  
24 thalidomide from the middle trimester of her third  
25 pregnancy, fortunately too late to affect her younger

1 daughter.

2 Thalidomide was wonderful. It stopped women being  
3 sick, and it's horrible to be sick in the middle of your  
4 pregnancy but it caused phocomelia and other horrible  
5 things. Ironically it has come back into favour for  
6 treating certain conditions related to myeloma. But  
7 nevertheless it was a seminal experience in the  
8 relationship between the pharmaceutical industry and the  
9 clinicians and it considerably strengthened the  
10 regulatory system that has been so finely developed in  
11 the UK since. So I acknowledge the validity of your  
12 comment about other tragedies, absolutely.

13 I have seen other tragedies concerning organ  
14 donation. I have been through quite a lot in my  
15 lifetime that's observed directly. And we still see  
16 tragedies of wrong blood being transfused. I can  
17 guarantee that it still is happening in Britain. People  
18 who are group O receive a pint of group A and their  
19 lives are permanently affected thereafter.

20 It is happening all the time. So it is a question  
21 of developing the regulatory system and clinical  
22 awareness, education. I think the one really good thing  
23 that has happened in my lifetime in terms of the medical  
24 career is that we doctors are much more aware -- at  
25 least I like to think this -- of our role in society



1 annual budget of £40,000 from the RHA means?

2 A. It means that after discussion with the treasurer of the  
3 RHA, I was allocated £40,000 to buy commercial  
4 Factor VIII.

5 Q. At that stage, I think you are suggesting that you had  
6 some involvement with the founding of the Haemophilia  
7 Society locally. Is that correct?

8 A. Yes, I did.

9 Q. What was your involvement with the Haemophilia Society  
10 at around that time?

11 A. Well, I knew the Haemophilia Society in London well. As  
12 I say, the Reverend Alan Tanner who was then the  
13 chairman, and John Prothero who was on the council were  
14 personal acquaintances and actually I would say friends  
15 of mine.

16 It was very simple. In the older Liverpool  
17 Royal Infirmary, which is a red brick late Victorian  
18 building, the labs were tucked away somewhat and people  
19 would wait in the corridor to have their blood taken,  
20 and on one occasion two women with their boys were  
21 sitting next to each other and they found that both the  
22 boys had haemophilia and blood was about to be taken for  
23 my technicians to analyse, and they got chatting and  
24 then they got chatting to me and I said, "Why don't we  
25 found a local branch of the Haemophilia Society", and



1           they said, "What a good idea", and went ahead and did  
2           it. And I gave them the address of the London contacts  
3           and from there it developed.

4   Q. Did you continue to have involvement with that local  
5       branch after the foundation?

6   A. Yes.

7   Q. What was your involvement?

8   A. Well, I was, if you like, the sort of consultant adviser  
9       to them about the realistic expectations that their  
10       sons, their affected sons, could have and how that  
11       should be improved over the course of the next decades.

12           Also, what was very striking to me is that the older  
13       haemophiliacs, those adults, who were lovely men, who  
14       had survived and were crippled, had a very different set  
15       of attitudes to the doctors who were caring for them.  
16       I mean, immense respect and rather almost embarrassing  
17       reverence, whereas these mothers and fathers of these  
18       haemophilics had much greater expectations from me, and  
19       I wanted to respond to that. And when they said to me  
20       things like, "Don't you think haemophilia is a bit like  
21       diabetes: we should get injections every day so that our  
22       boys can live normally lives?" I completely understood  
23       what those mums were talking about.

24   Q. This was --

25   A. 1976/1977.

1 Q. The late 1970s?

2 A. Yes.

3 Q. So that would be in the years after the World in Action  
4 DVD to give it a place in history?

5 A. Yes.

6 Q. Did the members of the local haemophilia branch seek  
7 your advice about the safety of products that were being  
8 used, blood products, at that time?

9 A. Oh, yes and I was quite upfront with them about the  
10 hepatitis risk, as far as I recollect.

11 Q. Would it be fair to say that members of the haemophilia  
12 community at that time and subsequently have generally  
13 a good understanding of haemophilia care and the  
14 products which are being used?

15 A. Around about that time, Peter Jones came out with his  
16 book, Living With Haemophilia, his first edition which  
17 I think was 1978 or 1979, which went down, as you will  
18 know, in the haemophilia world as a whirlwind. It was  
19 super, it was clearly illustrated, it was wonderful for  
20 the advice for the mums and the dads and the boys  
21 themselves, and it was highly successful and it did  
22 a lot to feed the understanding within the haemophilia  
23 community of the prospects of a bleed-free life.

24 Q. And the members of the Haemophilia Society with whom you  
25 were speaking, these were lay people?

1 A. Yes.

2 Q. At that time in the late 1970s there were difficulties  
3 and misunderstanding in the medical community about the  
4 safety of the product. Would that be fair to say?

5 A. In the 1970s --

6 Q. I'm thinking about the period post the World in Action  
7 DVD, which seems to suggest that that might be the case.

8 A. My recollection actually is that the vast majority of  
9 people felt Britain is not America, and it's an American  
10 problem and somehow or other the risk of  
11 American-derived Factor VIII would be attenuated by the  
12 time it got to Britain. And the only reason why that  
13 might have been understandable to the thinking was that  
14 the Americans were claiming greater and greater testing  
15 of their products, selection of their donors, to avoid  
16 the skid row component.

17 So I think, to some extent there was almost wishful  
18 thinking that this was a problem that would stay in  
19 America but wouldn't come over to Britain.

20 Q. How aware were you, as a haemophilia doctor at that  
21 time, as to how safe the American products actually  
22 were?

23 A. I have already intimated that when the opportunity came  
24 to buy in Factor VIII, I didn't go for the American. So  
25 in other words, American products to my mind, as a young

1 haemophilia doctor in the late 1970s, were to be avoided  
2 if possible.

3 Q. Presumably the members of the Haemophilia Society as lay  
4 people were reliant upon your advice about --

5 A. I think they felt that my advice was good.

6 Q. You made a distinction in your earlier evidence between  
7 weighing up the dangers of products against the  
8 effectiveness of products.

9 A. Yes.

10 Q. What I would like to ask you is: were the Haemophilia  
11 Society members reliant upon your advice about the  
12 dangers of the products?

13 A. Yes.

14 Q. I understand that you arrived in Edinburgh in 1980. Is  
15 that correct?

16 A. January 1980.

17 Q. And you became the deputy director in 1982?

18 A. Yes.

19 Q. So your arrival in Edinburgh coincided, I think, quite  
20 closely with the arrival of Dr Ludlam as the haemophilia  
21 director?

22 A. I think he was a month or so before me.

23 Q. So you were both around about the same time?

24 A. Yes.

25 Q. Could I just clarify something with you? In his

1 evidence about the way in which the BTS worked in  
2 Edinburgh, Dr McClelland suggested that there are really  
3 two parts to the operation and that one part was to do  
4 with collection of blood, so focusing on the donors, and  
5 the other part was to do with the storage and  
6 distribution. So to do with what one might call the  
7 blood bank. Is that an accurate representation of what  
8 your activities were?

9 A. My activities were with the blood bank. Yes, that's  
10 accurate.

11 Q. I meant in general, was that an accurate representation  
12 of what the blood transfusion service in your region was  
13 doing at that time?

14 A. There was a third component which was completely  
15 separate from haemophilia care, which was the selection  
16 for organ transplantation.

17 Q. I think Dr McClelland characterised the division of  
18 responsibilities as you being mainly responsible for the  
19 blood bank side whereas he was more responsible for the  
20 donor side. Is that correct?

21 A. Yes.

22 Q. I just wanted to ask one question about the main  
23 statement which you have given. Perhaps we could have  
24 up page PEN0150058, which is in the document that  
25 commences on [\[PEN0150054\]](#). You have given us some

1           comments about this already. I wanted to ask about the  
2           section at the bottom and in particular what you say  
3           about the batch dedication or batch allocation system.  
4           Could I just read that out? You say that:

5           "I do remember at one stage in the Edinburgh centre,  
6           we attempted to reduce donor exposure to haemophiliacs  
7           by restricting batch numbers of PFC Factor VIII  
8           concentrate to specified patients. In other words, once  
9           a new batch of Factor VIII had been administered to one  
10          patient, further treatments came from the same batch  
11          until that batch was exhausted. This was Dr Ludlam's  
12          suggestion and was administered, as far as I can recall,  
13          reasonably well by the staff of the blood product  
14          issuing department of Edinburgh and Southeast Scotland  
15          BTS, based in the Royal Infirmary. I cannot date the  
16          start of this policy. I cannot comment on how much  
17          DDAVP was used ..."

18          Et cetera, et cetera. I'm just wondering whether,  
19          with the obvious exposure you have had to historic  
20          material prior to giving evidence today, you have any  
21          recollection as to when this system was actually  
22          introduced?

23        A. I'm sorry, I cannot be more precise. I suspect that  
24          Dr Ludlam would be better informed than me.

25        Q. Did this batch allocation system cause you, within the

1           BTS, administrative difficulties?

2    A.   It simply meant that the staff day and night in the  
3           blood bank had to be aware of the problem, and also the  
4           doctors on-call in the haematology department for  
5           haemophilia care had to be aware of the system.  I think  
6           there may have been occasions -- in fact I'm fairly sure  
7           there were occasions when the system failed, either  
8           because the lab staff member on-call at night was  
9           unaware of the system or was busy doing something else  
10          and breached the system or the registrar on-call for the  
11          haemophilia unit may have not been fully familiar with  
12          the system.

13                 But that's the way it was designed and when I said  
14                 it worked fairly well, to my recollection, I do  
15                 acknowledge there may have been some breaches through  
16                 human error.

17    Q.   So when you say "some breaches", you mean that certain  
18           people, who should have been allocated to a particular  
19           batch, were exposed to blood product --

20    A.   Yes, they got a vial in the middle of the night from  
21           another batch.

22    Q.   Okay, thank you.  Could I just return to something  
23           I asked you about a moment ago, which is to do with the  
24           administration within the Blood Transfusion Service and  
25           particularly the use of the blood bank.  You have

1 answered some questions to the best of your recollection  
2 on this topic already but I have a few more I would like  
3 to put to you. The first is: did you ever at any time  
4 have a surplus of blood products within your region in  
5 the early 1980s?

6 A. Can I ask what you mean by "blood products"?

7 Q. Well, particularly factor concentrates.

8 A. Of PFC and cryoprecipitate, I very much doubt. Of the  
9 slightly specialised products, such as the Factor IX  
10 from PFC that would be reserved for inhibitor patients,  
11 there may have been batches that ran out. I'm not  
12 saying, however, that every single vial of PFC  
13 Factor VIII ended up in a patient. There may well have  
14 been occasions when some did expire, but we tried to  
15 minimise that.

16 Q. How long would a product be kept before expiry?

17 A. It would have had a date on it, which I think was  
18 two years or 18 months. Sorry -- but that sort of  
19 timescale. So, not unreasonably, the day after it  
20 expired clinicians would be reluctant to use it.

21 Q. To look at it from the other side of the equation,  
22 I think it's clear from the documentation we have looked  
23 at that there were times there were shortages of  
24 concentrates.

25 A. That's much more frequent, yes.



1 Q. In those circumstances what I'm interested to know about  
2 is whether it was possible, as some of the  
3 correspondence we have looked at seems to suggest, for  
4 you to make up the shortfall by looking in the stores of  
5 other regional blood transfusion services?

6 A. Well, that did happen, that's why we got some from  
7 Inverness on that occasion.

8 Q. I think we looked at a letter -- for the record, I think  
9 it was [\[SNB0015219\]](#), which was a letter of  
10 7 December 1982, which suggested that you were able to  
11 get some product from both Inverness and Glasgow.

12 A. Yes.

13 Q. Is that, to the best of your recollection, accurate --

14 A. Yes.

15 Q. -- that you would have got some? How did that work  
16 administratively between the regions? Would you be  
17 responsible for that?

18 A. Not directly.

19 Q. Right.

20 A. There was a chief MLSO, a chief technician, in the blood  
21 bank, who was responsible for all aspects of, if you  
22 like, the mechanics of the delivery of blood and blood  
23 products to the relevant clinical departments. There is  
24 also, as we have heard earlier, an allusion to a van  
25 that the SNBTS had, a vehicle that could transport

1 safely and under proper conditions, ie refrigeration,  
2 materials that could be transferred between the regional  
3 centres, so that what was in store in Law or in  
4 Inverness could be driven down under proper conditions  
5 and placed in proper conditions in the Edinburgh blood  
6 bank, and the day-to-day running of that would have been  
7 through the chief MLSOs.

8 Q. Thank you. Was there a tendency for certain regions to  
9 have a shortfall of factor concentrates and other  
10 regions to have an abundance of this?

11 A. I can only answer for Edinburgh. Clearly, Edinburgh on  
12 the whole was short.

13 Q. You have suggested on a couple of occasions going to  
14 Inverness to make up the shortfall. I wonder whether  
15 perhaps that was one which you thought would be likely  
16 to have something, if you approached them.

17 A. I cannot recollect but I suspect that our wonderful  
18 chief MLSO phoned round the other centres, said, "How  
19 much have you got?" And they said either, "None," or,  
20 "A little bit," or, "Yes, we can do a bit." But I was  
21 not involved in those direct selection procedures.

22 Q. Thank you. I'm interested in exploring a little bit  
23 further the precise nature of your job because, as  
24 counsel to the Inquiry has pointed out, you are someone  
25 who is experienced as both a haemophilia doctor but also

1           within the transfusion service, which is very rare.  
2           I think you pointed out already that you were the  
3           first person to be appointed in the region who had that  
4           background. Is that accurate?

5   A. Yes, I think so, yes.

6   Q. I'm interested to know who was responsible within the  
7           Edinburgh and Southeast region for determining what  
8           products would be used in the treatment of  
9           haemophiliacs.

10   A. The primary person responsible for that would be the  
11           haemophilia director.

12   Q. And that at that time was Dr Ludlam?

13           You say the primary person responsible. Did you  
14           have any involvement in that process, given your  
15           background as a haemophilia doctor?

16   A. Christopher knew where I came from. We had a cordial  
17           relationship and I think you can see the evidence of  
18           particularly that 1982 period, where there were quite  
19           intensive meetings between us, that we actually came to  
20           a workable arrangement.

21   Q. Would you express your view as to the regimes for  
22           treatment that he was using from a haemophilia doctor  
23           point of view?

24   A. Well, I had the cheek to suggest that one patient might  
25           benefit from having no therapy at all. So the answer to

1           your question is yes.

2    Q.   I'm aware of the reference that you are making and we  
3           may come to that in a moment. I think the word that you  
4           used was "impertinence" at the time.

5    A.   Yes.

6    Q.   What I'm interested in knowing is was that a regular  
7           concern. Did you regularly have conversations with  
8           Dr Ludlam about the way in which patients should be  
9           treated, either generally or specifically?

10   A.   That's putting it too strongly. Not the way the  
11           patients should be treated, but we did have  
12           conversations about the problems or the various  
13           variations that might be available for patients.  
14           I think, although I can't be certain of this, that we  
15           were not always, but quite often, given notice of  
16           planned surgery for haemophiliacs. So if a haemophilic  
17           required a planned orthopaedic procedure which would be  
18           likely to require a lot of blood, we would be given  
19           advance notice.

20   Q.   Could I ask you what the position was from a more  
21           general point of view? You have answered there in  
22           relation to specific patients undergoing operations, but  
23           the position, as I understand it, in around 1980 was  
24           that Dr Ludlam had expressed a desire to move away from  
25           the previous regime, which relied heavily under

1 Dr Davies on cryoprecipitate, but move towards more  
2 factor concentrate use, in particular with a view to  
3 putting more patients on home treatment. Is that  
4 accurate?

5 A. I'm sure that Christopher would give a better answer  
6 than me but that's what I recollect.

7 Q. I think that that is probably reflected in your letter,  
8 which we have looked at, to Mr Watt, dated  
9 1 February 1980. Can we have that up, please? It's  
10 [\[SNB0072566\]](#). That is a letter, as I say, we have  
11 looked at already but you are sending a letter to  
12 Mr Watt at the PFC. The title is "Factor VIII stocks  
13 for home therapy". You say in the second paragraph:

14 "Naturally, I'm anxious to support such a programme  
15 as much as possible and feel you ought to know that  
16 I see no reason to discourage Dr Ludlam from going ahead  
17 with this programme. I feel that he is very likely to  
18 expand his home therapy programme, certainly in the  
19 course of the next year, and this may well result in  
20 a significant difference in the pattern of our Factor  
21 VIII usage, ie less cryo, more concentrate, and this, of  
22 course, may mean that we should be prepared to ship you  
23 more fresh-frozen plasma for fractionation. Please let  
24 me know if you have any comments on these points.

25 It would be fair to say that this letter was written

1 as a result of a strategic planning conversation you had  
2 had with Dr Ludlam about his intention to increase home  
3 therapy?

4 A. That sounds rather grandiose but I suspect you are  
5 right. This was written two weeks after I had started  
6 my job.

7 Q. So by that time you had already had this conversation  
8 with Dr Ludlam, it would appear.

9 A. Yes.

10 Q. Did you have a view on the general proposal that there  
11 should be this move away from cryoprecipitate treatment  
12 towards the use of more Factor VIII from a haemophilia  
13 point of view?

14 A. My view was that Christopher was right. At that time we  
15 had no inkling of HIV/AIDS. We, of course, did know  
16 about hepatitis. But perhaps -- no. I was going to say  
17 "naively" but that would be unfair. We reckoned that  
18 the process of blood donor selection and testing for, on  
19 the whole, ever better hepatitis screenings would result  
20 in a quality of plasma sent for fractionation that would  
21 be as risk-free as possible and also a recognition that  
22 the process of fractionation, although the product that  
23 was infused into haemophiliacs had many more proteins in  
24 it than just Factor VIII and in technical terms was  
25 rather impure and was called actually "intermediate

1           purity", nevertheless that was as good a quality product  
2           as could be obtained anywhere in the world and on a par  
3           with commercial firms.

4           In some other correspondence you will have seen  
5           about how to package it and send it and the interesting  
6           point is that the commercial firms developed a very good  
7           marketing strategy. By that I mean the packaging, the  
8           water with which it came, and the literature -- lovely  
9           pictures of haemophilia boys riding bicycles -- which  
10          was beyond the budget of the PFC. So John Watt very  
11          naturally sometimes would say to me, "Frank, you are  
12          getting too enthusiastic about trying to beat the  
13          commercial boys at their own game, but we can supply you  
14          good quality material; it may not look as nice." So, in  
15          essence, that's the sort of thing that John Watt was  
16          saying.

17          So I supported Christopher's then desire to use more  
18          PFC Factor VIII for his patients. It was the right  
19          direction and to my mind was clearly so then and I think  
20          is entirely justifiable as an attitude even now.

21    Q. Did you have a view on his proposal that there should be  
22          this move away from cryo towards factor concentrates  
23          from the point of view of supply?

24    A. Well --

25    THE CHAIRMAN: I'm sorry, I don't think I quite understood.

1 A. I think what he is referring to is, Christopher's  
2 demand, was it realistic?

3 MR DAWSON: Indeed.

4 THE CHAIRMAN: We can come back to that after lunch,  
5 Mr Dawson.

6 (1.00 pm)

7 (The short adjournment)

8 (2.00 pm)

9 THE CHAIRMAN: Yes, Mr Dawson.

10 MR DAWSON: Thank you, sir. Dr Boulton, if could I ask you  
11 the question: in 1980 what was your view about whether  
12 it would be realistic to provide enough PFC Factor VIII  
13 concentrate to meet Dr Ludlam's plans for increased home  
14 therapy with PFC Factor VIII?

15 A. In early 1980, within a few weeks of me joining the  
16 service, I suppose that my feelings were that every  
17 effort should be made to meet the demands that were  
18 likely to occur over the next few years. I can't really  
19 be much more precise than that.

20 Q. Did you think it would be realistic to be able to meet  
21 those demands?

22 A. Well, I wouldn't have supported the proposal had  
23 I thought they were unrealistic. How realistic  
24 I thought they would be? I suppose I was still in  
25 a process of learning.



1 Q. What was the point then of your letter to Mr Watt that  
2 we looked at, dated 1 February 1980?

3 A. Could we refer back to that one?

4 Q. Absolutely. It's [\[SNB0072566\]](#). You will recall that  
5 I read out the second paragraph of that. My question  
6 is: why did you consider it necessary to write that  
7 letter to Mr Watt at that time?

8 A. Well, one reason is to give John Watt some indication of  
9 the reason for a likely surge in demand:

10 "I feel that he [\[Dr Ludlam\]](#) is very likely to expand  
11 his home therapy programme considerably in the course of  
12 the next year."

13 So it was in a sense giving notice to the plasma  
14 fractionators that this demand was coming their way and  
15 therefore they should prepare accordingly or respond  
16 accordingly.

17 Q. Does this letter embody a concern that there might be  
18 difficulties of supply in the future if that home  
19 therapy programme were rolled out, as has been  
20 suggested?

21 A. I can't say. It is too far away for me to remember  
22 that.

23 Q. Can we roll on a bit in the timeline and can I ask you:  
24 did you experience problems with supply in the first  
25 half of the 1980s? Supply of Factor VIII concentrate

1 from PFC, I should say.

2 A. I think the records we have already looked at of the  
3 meetings I had with Dr Ludlam in 1982 go a along way to  
4 address that. But are you asking me if I thought in  
5 1980 there would be problems in 1982?

6 Q. No, I'm just asking you whether in reality you did  
7 experience problems in supply?

8 A. The records of those meetings in 1982 with Christopher  
9 would indicate that there was an awareness of  
10 a challenge that we needed to address as much as  
11 possible. So there was a problem insofar as it required  
12 Christopher and I to jointly try to sort it out.

13 Q. But there was a problem of supply. Are you agreeing  
14 with that proposition?

15 A. There was a problem of trying to adjust the legitimate  
16 demand of the patients with what could conceivably be  
17 available. That's not quite the same as: was there  
18 a problem of supply? The supply and demand, in general,  
19 the equation has factors on both sides and both sides  
20 can be adjusted, and the important thing in this sort of  
21 situation is to devise a system whereby both sides can  
22 be satisfied but with some degree of compromise.

23 Q. Was there an increase in demand --

24 THE CHAIRMAN: Mr Dawson, can I remind you that you started  
25 off the section by asking about a problem in the first

1 half of the 1980s. It might be helpful to be more  
2 specific as to time.

3 MR DAWSON: Indeed. I apologise. I was actually just going  
4 to take Dr Boulton to a document that would pin it down  
5 to a particular timeframe, but before I do that, could  
6 I simply ask: by 1982 -- and we have looked at some  
7 documentation from that particular period -- was there  
8 increased demand?

9 A. Yes.

10 Q. And what was the cause of that increased demand at that  
11 time?

12 A. Principally, the desired switch from cryoprecipitate to  
13 PFC materials and a developing home therapy programme,  
14 as far as I'm aware.

15 Q. Could I just take you to that document, which we have  
16 looked at before, from the middle of 1982. It's  
17 [\[SNB0015199\]](#).

18 As I say, I think this is a letter to which you have  
19 been taken before. It's a letter which is dated  
20 10 May 1982 from you to Dr Ludlam. You say in  
21 paragraph 2 of that letter that:

22 "My concern is the amount of Factor VIII that has  
23 been issued. The total for the first quarter was  
24 206,800 units. This would be an annual consumption of  
25 827,200 units. This means that for each of the 20

1 patient, the average annual consumption would be 41.360  
2 units or 34,464 units, if you included all 24. These  
3 figures are obviously pretty close to the UK national  
4 average."

5 Then down to paragraph 4. You say:

6 "Hence, you will see that your home therapy  
7 programme alone has accounted for about 80 per cent of  
8 our allocation from PFC."

9 Would you like to make any comment about the reason  
10 why you were bringing to Dr Ludlam's attention at that  
11 time the statistics relating to the amount of PFC  
12 Factor VIII that was being used for what you describe as  
13 his home therapy programme?

14 A. I honestly don't think I can say any more. This is  
15 27 years ago and I'm being asked to recall in detail the  
16 motivations I had for making these points. I honestly  
17 don't think I can satisfy you if that's the road you  
18 want me to go down, any more than is actually written  
19 down here. I don't refute any of these statements that  
20 I made in these letters. I think I just have to ask you  
21 to take them at the value you see them written. I can't  
22 add anything more at this stage.

23 Q. I understand that difficulty, Dr Boulton. If I  
24 could ask for the second page of this letter to be put  
25 up. Perhaps a third page. I think the third page of

1 the document is actually the second page of the letter.  
2 You say there:  
3 "I think that the SNBTS as a whole can just about  
4 hold your requirements so long as the following points  
5 are borne in mind."  
6 Then you have a list there of the kinds of things  
7 that you think might be able to keep the position as it  
8 is, which appears to be just about surviving. Is that  
9 correct?  
10 A. It looks like it, yes.  
11 Q. One of those is that no more patients are put on home  
12 therapy, number 2.  
13 A. Yes.  
14 Q. Can you tell me -- and of course you may have  
15 difficulties with your recollection -- as to whether you  
16 managed to adhere to these five propositions after that?  
17 A. Well, it's not a question of me adhering. These are the  
18 requirements that would be on the clinicians supporting  
19 the haemophiliacs, and I was not a clinician supporting  
20 the haemophiliacs directly.  
21 Q. Was Dr Ludlam able to adhere to these --  
22 A. You would have to ask him. I don't know.  
23 Q. Thank you. That's all I want to ask you about that  
24 particular document.  
25 We heard some evidence -- I think you were aware --

1 from your former colleague, Dr McClelland, last week and  
2 he spoke about a number of these issues that we have  
3 been discussing with you. He was asked what the  
4 relationship between yourself and Professor Ludlam, the  
5 working relationship, was like and he said that:

6 "It is also possible that there may have been some  
7 sort of medical/professional tension between them  
8 because they were both experts in treating haemophilia  
9 patients and experts frequently don't agree about  
10 things."

11 Is that an accurate representation of the  
12 professional relationship or not?

13 A. If that impression is one that gives a negative picture,  
14 that is not correct. Tension can be productive and my  
15 recollection of those times, yes, there were tensions,  
16 but there was no animosity, and although occasionally  
17 frustrations may have been vented in the privacy of  
18 one's room, et cetera, et cetera, I think we are all  
19 adult enough to recognise that under these sort of  
20 circumstances tension can be used creatively, and  
21 I would like to think some years further on that the net  
22 result was a positive one.

23 Q. What was the cause of the tension?

24 A. We had different personalities. We have different  
25 training assumptions. Thank goodness there is diversity

1 in the nature of humankind. We are different people but  
2 we have a common outlook on many things, and whenever it  
3 comes -- it is like in many situations between  
4 colleagues or close friends, there are differences that  
5 had to be sorted out, and so long as we can sort it out  
6 in a civilised and positive manner, that's how progress  
7 is made.

8 Q. I think that in the same email Dr McClelland was making  
9 specific reference to the possibility of tension arising  
10 out of the fact that you were both experts in treating  
11 haemophilia patients. So was there any tension which  
12 arose as regards the way in which one might best treat  
13 haemophilia patients?

14 A. I did not want to be responsible for treating his  
15 haemophilia patients. I recognised that I had no direct  
16 role in patient care because that was his job and I had  
17 a different job. I might have had an insight into the  
18 nature of Christopher's job because of my previous work  
19 but I was not in the position and would never have  
20 wanted to be in the position of actually interfering  
21 with his work.

22 Q. I would like to ask you a few questions about a topic  
23 that we have touched on already, which is to do with  
24 your awareness of the increasing possibility of there  
25 being a risk of AIDS and the dangers for your patients

1 arising out of that.

2 Can we have up, please, to document [\[SNF0013710\]](#),  
3 which is again a document we have seen before.

4 Just to put it in context, Dr Boulton, this was the  
5 memo that was sent from you to Dr McClelland on  
6 30 May 1983, in which you had made reference to your  
7 telephone conversation with Peter Jones on 24 May. Can  
8 I ask you first of all why it was that you had made that  
9 telephone call to Peter Jones?

10 A. The second sentence, I think, might give an indication.  
11 I was basically following what he was claimed to have  
12 said on a nationwide programme the previous week about  
13 non-rejection of gay donors. I have no memory of why  
14 I phoned Peter Jones other than what's in here, but it  
15 does look as if what I was a little bit concerned about  
16 was the issue of the appropriateness of men who have had  
17 sex with other men giving blood.

18 Q. So was that an issue, as far as you can remember, within  
19 your Blood Transfusion Service at that time?

20 A. Oh, yes.

21 Q. What was the issue?

22 A. By May 1983 we were well aware of the epidemiology of  
23 this strange disease, coming from the States, that  
24 heavily associated it with men who had had sex with  
25 other men.



1 Q. So would it be accurate to say at this stage that there  
2 were discussions going on between yourself and  
3 Dr McClelland about whether you could and whether it  
4 would be a good idea to try and screen donors who had  
5 a history of homosexual contact with other men on the  
6 basis that it might pose a risk?

7 A. The question, I think, that is highlighted in this memo  
8 is how appropriate would it be to ask men if they had  
9 had sex with other men somewhere along the line between  
10 them attending and giving blood.

11 1983, very different times from now, when there is  
12 much greater acceptance within society as a whole of the  
13 validity of the homosexual lifestyle. Much less  
14 judgmental these days than those days and we were  
15 sensitive to social stigma that would be associated with  
16 men who admitted that they had sex.

17 So, given the fact that donor sessions, although  
18 meant to be totally confidential, are nevertheless  
19 conducted sometimes in a more open way, given the fact  
20 that the general public was aware that some people did  
21 not give blood or were not allowed or were not expected  
22 to give blood because of their sexual history, given the  
23 fact that donors sometimes turned up in bunches to  
24 encourage each other to give blood, given the fact that  
25 any one of those who was turned away was a cause of

1           suspicion, given all these social circumstances around  
2           the blood donation procedure, there was great concern  
3           about the right way of, as you say, screening, which  
4           isn't quite the word I would have used, but of selecting  
5           donors according to their sexual history, a very  
6           delicate subject, particularly in those times.

7           So whereas Peter Jones was of the opinion that we  
8           should not ask them verbally at the session about their  
9           lifestyle but leave literature around explaining it,  
10          most of us on our side -- and I'm pretty sure that I was  
11          on this side -- were of the opinion that that would not  
12          be adequate, that in fact a person who had already  
13          screwed up enough encourage to come and give blood was  
14          unlikely to be deterred by a slightly strangely worded,  
15          incomprehensible document when it needed to be explained  
16          to them in words by a friendly, non-judgmental person,  
17          who would be able to explain to them in some sort of way  
18          at the interview session.

19          So why -- where I go on later saying that -- is it  
20          in this one, where I say Peter Jones was less than  
21          cautious? Yes, I felt he was being somewhat less than  
22          cautious in his attitude, et cetera, my feeling is --  
23          and I might say that until I saw this again a few months  
24          ago, I didn't remember this whole thing. So you are  
25          asking me to recreate from the back of my brain a set of

1 concepts that I can't guarantee the total accuracy of.  
2 But in reconstruction it does rather look as if we felt  
3 that you needed to do more in donor selection than just  
4 leave a document hoping that they would read it.

5 Q. Thank you for that.

6 I think that just to put it in a bit of context and  
7 maybe just to refresh your memory, I can refer very  
8 briefly to paragraph 8.33 of the preliminary report  
9 which gives some background to what is going on at this  
10 time, and it says there in the last couple of sentences:

11 "In June 1983, Edinburgh and Southeast Scotland  
12 produced a leaflet, "AIDS and Blood Transfusion". The  
13 leaflet asked those in certain high risk groups not to  
14 give blood until there was a suitable screening test.  
15 It appears to have commenced circulation around  
16 15 June 1983."

17 So that appears to suggest that the leaflet route  
18 was what was decided upon after this. Do you recall  
19 that leaflet coming out, Dr Boulton?

20 A. Sorry, can we have --

21 Q. I can put the document up if it's of assistance to you.  
22 It's the original page 196 of the preliminary report.

23 Sorry to jump about between documents. Paragraph 8.33.

24 A. Is it going to come up on the screen?

25 Q. It's going to come up on the screen, yes.

1           You see there under the heading "Summer 1983", this  
2           is in a chapter of the preliminary report where we are  
3           discussing HIV and AIDS. In this paragraph we are  
4           talking about the particular time period, summer 1983,  
5           action taken in the United Kingdom. What I have read is  
6           four lines from the bottom of the first paragraph,  
7           starting:

8            "In June 1983, Edinburgh and Southeast Scotland  
9           produced a leaflet, "AIDS and Blood Transfusion". The  
10          leaflet asked those in certain high risk groups not to  
11          give blood until there was a suitable screening test.  
12          It appears to have commenced circulation around  
13          15 June 1983."

14          I think you made reference earlier to a leaflet.  
15          This is presumably the leaflet you were talking about  
16          a moment ago?

17   A. I certainly recollect a leaflet being prepared with this  
18          theme. I could not possibly date it.

19   Q. Right. There is a reference there to high risk groups.  
20          Would that include the gay donors that are referred to  
21          in the opening paragraph of your memo to --

22   A. Yes, however, I think it fair to comment that probably  
23          around about that time, or maybe a little before that  
24          time, there was a lot of concern, as I'm sure you are  
25          aware, in Edinburgh of injecting drug users being

1 a particular risk group category. So in some ways  
2 I think we were as concerned about the injecting drug  
3 users as we would have been about homosexual men.

4 Q. Would there not have been, at that time, some other  
5 method of excluding injecting drug users from giving  
6 blood?

7 A. Well, the lesson of the epidemiology of Hepatitis C is  
8 clearly no; we can say that now, no. Whether I was able  
9 to say that in 1983 is a bit more dubious, but may  
10 I remind you that when we found that there were people,  
11 after 1991, when we introduced the Hepatitis C test, who  
12 were Hepatitis C-positive and who admitted to, on  
13 reflection, one or two parenteral drug using episodes  
14 a decade or so before, we realised that even one  
15 parenteral injection of a drug under such circumstances  
16 could infect with Hepatitis C with all the dire  
17 consequences that could result. We were not aware of  
18 that in 1981. But nevertheless we were aware and the  
19 other thing is that Edinburgh seemed at that time to be  
20 a hotspot of parenteral drug use.

21 Q. Was there a concern at the time of these documents, in  
22 the middle really of 1983, that the HIV virus had  
23 entered the UK blood donor population then?

24 A. It's very difficult for me at this stage to identify the  
25 degree of that concern but I think it's likely that

1           there was a concern about the possibility, either  
2           already there or about to come.

3   Q.   Right.  The concern was great enough to give rise to  
4           these attempts to exclude groups -- gay donors or  
5           intravenous drug users -- that you think might be at  
6           a higher risk of HIV than other people.  Is that  
7           correct?

8   A.   Yes, I imagine so.

9   Q.   Could we return to the document we were looking at  
10          before, [\[SNF0013710\]](#).  It will come up on your screen  
11          again, Dr Boulton.

12                 This is just us back to the memo between yourself  
13                 and Dr McClelland relating to your conversation with  
14                 Peter Jones and you referred already to the second last  
15                 paragraph, could I just read that out.  It says:

16                 "He [which is a reference to Dr Jones] also claimed  
17                 there is a lot of doubt about the diagnosis of all the  
18                 AIDS cases in the UK, and in particular the  
19                 haemophilics."

20                 You then say:

21                 "I felt he was still being somewhat less than  
22                 cautious in his attitude but this is not unexpected  
23                 given his interests ..."

24                 Et cetera.  Could you tell me first of all why it  
25                 was that you thought Dr Jones was being somewhat less

1 than cautious in his attitude at that time?

2 A. I think this goes back, although I say repeatedly,  
3 I think that this goes back to a suggestion that we  
4 don't ask donors at the session but just leave leaflets,  
5 ask them to read a leaflet, and that, I think, could  
6 arguably be said to be less than cautious enough.

7 Q. Why did you think that the fact he was being somewhat  
8 less than cautious in his attitudes was not unexpected  
9 given his interests?

10 A. This may seem a little unfair but one possibility could  
11 be that he was anxious, particularly with the earlier  
12 paragraph about the diagnosis of -- sorry, I have lost  
13 it somewhere:

14 "He also claimed that there is lot of doubt about  
15 the diagnosis of all the AIDS cases in the UK."

16 So one possible reason for his interests being  
17 implicated in this is that asking men if they had had  
18 sex with other men would not be a very effective way of  
19 screening out such donors because AIDS in the UK might  
20 have had different diagnostic and clinical  
21 characteristics than AIDS in the US, but I'm being  
22 speculative here.

23 But Peter's interests were in maximising Factor VIII  
24 availability for his patients. He was aware that there  
25 is a problem or potential problem in supply in relation

1 to an infection but at that time there was still some  
2 doubt about the impact of the infection and I think  
3 one's views on those impacts could be, understandably,  
4 although possibly not legitimately, but understandably  
5 influenced by one's own practices. So that if you are  
6 responsible for stopping little boys from having  
7 a distressing bleed, that will head you in one  
8 direction. If you are cautious about giving little boys  
9 a disease that might haunt them in 20 years' time but  
10 only might and might not -- and the might not is more  
11 than the might -- then you have a slightly different  
12 emphasis.

13 So if you like, it's a tension between the clinical  
14 insights of the one side or the other.

15 Q. So it's a balancing exercise, if I understand you  
16 correctly, between his practice of giving treatment in  
17 a certain way, balanced against the risks?

18 A. At that time the risks were incredibly ill-defined in  
19 quantitative terms. There was an understanding about  
20 what the risks were qualitatively, but what was AIDS?  
21 How infectious was it? Was it likely to be a permanent  
22 illness? Could it have been transmitted by other means  
23 than blood? Those were questions that were still in the  
24 air. And until the actual virus was identified and its  
25 epidemiology addressed, clearly in the Koch's Postulates



1 way, there were all these sorts of questions beforehand.

2 So there was an area of uncertainty. So the balance  
3 was very difficult to achieve because you didn't know  
4 how much the weight on that side of the seesaw was.

5 Q. Were you aware of Dr Jones' attitude towards the use of  
6 commercial product?

7 A. Well, I think Peter was very aware of the availability  
8 of commercial Factor VIII, not least because the  
9 commercial manufacturers were very active in marketing  
10 it in the UK.

11 Q. Were you aware that he had a relationship with an  
12 American pharmaceutical company as a paid consultant?

13 A. I was not aware specifically. There were certain  
14 statements to that effect.

15 Q. Right. Could that relationship or those statements as  
16 regards that relationship be what you mean by his  
17 "interests"?

18 A. Well, no. I don't think I meant in his interests that  
19 he had an interest in a commercial company. I think the  
20 interests he was referring to would be to his clinical  
21 concerns for the benefits of his patients. I don't  
22 think -- I'm pretty sure -- again, you are asking me to  
23 recollect, and it's a good question but I honestly don't  
24 think that I meant by his interests that he had some  
25 sort of commercial/financial/shareholding, or whatever

1 interest, in those commercial companies. I think it's  
2 a clinical interest.

3 Q. Okay, thank you. Could I just ask you about the final  
4 paragraph there. I don't think we have actually read  
5 this bit out:

6 "He also seems to have picked up a somewhat  
7 different picture of the Cambridge Travenol meeting than  
8 that which you gave to us. I think it is probably  
9 a question of his ears being attuned to only part of the  
10 message which Anne Collins would have given him.  
11 However, I think it has been useful that we, as  
12 transfusionists, do interact with the haemophilia  
13 treating doctors, and certainly I think Arthur's letter  
14 is not unreasonable."

15 Could you just, to the best of your ability, tell me  
16 what you were talking about when you referred to the  
17 Cambridge Travenol?

18 A. I am afraid I can't. I can't recollect now what that  
19 Cambridge Travenol meeting was, and anyway I wasn't  
20 there. I think it was Brian who was there and then  
21 Brian would have transmitted his impressions of that  
22 back to us, which apparently differed from the message  
23 I had from Peter.

24 Q. It certainly suggests from the words "that which you  
25 gave to us", that Brian was there because he had given

1           you a certain impression of what had gone on. But there  
2           might have been a different impression conveyed to  
3           Peter Jones. Is that right?

4    A. I think that's right. It looks to me as if Brian was  
5           there, gave us a resume of his understanding of what had  
6           proceeded, and it didn't quite tally with the resume  
7           that Peter Jones had given of the same meeting.

8    Q. Could I ask you just a couple of very general questions  
9           to finish off.

10           Did you, in your time in Edinburgh, speak regularly  
11           with haemophilia centre directors about your views on  
12           matters of the day, including issues relating to the  
13           possible infectivity or infection which could be  
14           transmitted through blood products?

15   A. I think my only contact with the UK haemophilia  
16           directors were at that three or four meetings of the UK  
17           centre directors in that period of time, and that one  
18           telephone call with Peter. There would have been  
19           meetings of the British Society for Haematology, at  
20           which I also may have met them, but it was not on  
21           anything like a regular basis.

22   Q. What about with Dr Ludlam? Would you regularly discuss  
23           issues about risks of infection with him at this time?

24   A. "Regularly" implies that there was a predictable date at  
25           which we would meet. I think our relationship was often

1           less formal than that.  So --

2   Q.  I didn't mean to suggest any formality.  I was wanting

3       to know how often --

4   A.  We saw each other perhaps three or four times a week but

5       we probably didn't actually talk about the haemophilic

6       problems as frequently as that.  Christopher was in the

7       department next door.  We didn't often need to actually

8       have a specific date but there were these occasions in

9       1982 in particular when we were addressing the situation

10      about the right balance of supply, which were

11      specifically recorded.  We had more meetings than that

12      that probably were not often recorded, of which there is

13      no extant record.  It wasn't just those meetings.  They

14      were on a more frequent basis.  How regular they were

15      and how long they went on for, I can't remember.

16  Q.  I understand.  What was your opinion about the risk of

17      HIV transmission through blood and blood products in the

18      spring of 1983?

19  A.  Spring of 1980 ...?

20  Q.  3.

21  A.  3.

22  Q.  Roughly about the time that you wrote the memorandum we

23      were just looking at to Dr McClelland.

24  A.  My opinion was not mine, it was one that was as a result

25      of discussion with other transfusion doctors and with

1 Brian and with whoever else, other clinicians around.  
2 My recollection is that I felt there was sufficient  
3 grounds to be concerned about the possibility of  
4 transmission of whatever causative agent was.

5 Q. Can I just put one quotation from the evidence we had  
6 from Dr Mark Winter whom you will no doubt know.

7 A. Thank you, yes.

8 Q. Just to get your reaction as to whether you agree with  
9 this proposition or not. This is just for the record  
10 from his evidence on day 16 of the hearings.

11 It's page 34 at line 8 under a reference to a document  
12 dated March 1983. He said:

13 "I think by that stage, all haemophilia clinicians  
14 were signed up to the infectious theory because of the  
15 evidence of the San Francisco child. There was no other  
16 construction you could put on that evidence. So I think  
17 these minutes are just reflecting -- they are setting  
18 out the other theories and discounting them because of  
19 the new haemophilia data."

20 A. Sorry, I did read Mark Winter's -- it is not on the  
21 screen.

22 Q. His proposition, I think if I can summarise it, was that  
23 in March 1983, all haemophilia clinicians had signed up  
24 to the theory that HIV was a virus and that it was  
25 transmissible through blood. Would you agree with that

1 proposition? I know that at that time you might not be  
2 described as a haemophilia clinician but obviously you  
3 had been, and would you include yourself within that  
4 category at that time?

5 A. The answer to that is yes. What I cannot say is how  
6 valid the word "all" is.

7 Q. But you would have associated yourself --

8 A. Yes, I would have been of that opinion, yes.

9 Q. Thank you, sir.

10 Thank you, Dr Boulton.

11 THE CHAIRMAN: Mr Anderson?

12 Questions by MR ANDERSON

13 MR ANDERSON: Yes, thank you.

14 Dr Boulton, good afternoon to you. You will be  
15 relieved to hear I only have one or two questions for  
16 you.

17 A. Thank you.

18 Q. Dr Boulton, the chairman used the phrase:

19 "'insularity', otherwise called autonomy of  
20 different regions."

21 If -- and it may be a very big if -- insularity  
22 suggests that one region didn't know what the other was  
23 doing or wasn't cooperating with another region, would  
24 that be an apt description, do you think?

25 A. We didn't always know what was going on in other

1 regions, yes.

2 Q. But was there any failure to cooperate if cooperation  
3 was required?

4 A. Well, thankfully I was not the director of the Southeast  
5 Scotland region. I was just one of the consultants. So  
6 to some extent I was protected from the negotiations or  
7 whatever or the relationships that were being exercised  
8 at a higher level.

9 So I'm not really very competent at making any  
10 observations. But let's face it, we are all aware that  
11 in any greater society there will be pockets of local  
12 loyalty that result in occasional rivalries or even  
13 differences. So it would not be surprising that in each  
14 of the five regions, that were of very disparate sizes  
15 in Scotland, there would be a difference of emphasis, a  
16 difference of attitude.

17 If I can come specifically to Glasgow. Glasgow did  
18 have a very interesting practice of freeze-drying their  
19 own cryoprecipitate, and I think this practice extended  
20 until the early 1980s, and when that plant was closed  
21 down on the grounds of the Medicines Inspectorate's  
22 opinion, I think that was a blow to the Glasgow pride.  
23 So I think in the context of what one region could do  
24 and what other regions could do, there was always  
25 a tension.

1 Q. I was thinking more of the ability of one region perhaps  
2 to help another region out. We have seen an example  
3 this morning already of Inverness, for example, sending  
4 supplies to Edinburgh?

5 A. I have no doubt that if one region approached another  
6 region for help and gave a sound reason for that  
7 request, the help would be forthcoming with very little  
8 difficulty.

9 Q. Thank you, Dr Boulton.

10 I think you have talked about one of your officers  
11 phoning round various regions. Do you know if that  
12 happened often or is that a relatively isolated  
13 incident?

14 A. I don't think it happened very often but that phoning  
15 around story that I gave earlier is one that I can  
16 recollect in that it happened, but in terms of  
17 frequency, I can't say. Again, to a large extent  
18 I wouldn't necessarily have been involved in that.

19 Q. On a separate matter, Dr Boulton, counsel to the Inquiry  
20 took you through some correspondence, not long after  
21 your arrival in Edinburgh. Can we look at one document  
22 that you weren't referred to, please? It's  
23 [\[SNB0073264\]](#). You are not a party to this letter. It  
24 is a letter, I think, from Dr Cash to John Watt. Have  
25 you seen this letter before? Take time to read it.



1 (Pause)

2 It appears, you will see in the second paragraph, to  
3 make reference to the pro rata meeting. Do you recall  
4 if you were at that meeting?

5 A. No, I can't recall.

6 Q. Can you help us with what "pro rata meeting" means with  
7 reference to the final paragraph on that page, the  
8 question of reintroducing pro rata.

9 A. I would imagine that it means that if we gave  
10 4,000 litres to PFC, if the Edinburgh and Southeast  
11 regional centre gave 4,000 litres of plasma to PFC, the  
12 Edinburgh haemophilia centre would get 4,000 litres'  
13 worth of Factor VIII.

14 Q. You will see in the final paragraph it says:

15 "What I would like to explore with you is whether we  
16 should reconsider the matter of reintroducing pro rata  
17 as soon as possible, rather than sitting on a stock  
18 which could prevent certain patients in the SE being  
19 exposed to commercial concentrate."

20 Again, one gets a flavour of the preference,  
21 I think, for NHS product. Is that right?

22 A. I would imagine so. I was relatively remote from this  
23 particular level of discussion, I think.

24 Q. All right. Pro rata has nothing to do, does it, with  
25 allocation being based on head of population? Or do you

1 not recall?

2 A. I think the pro rata was on plasma but I may be wrong.

3 THE CHAIRMAN: It is quite difficult, I think, on the  
4 documents to sort out exactly where one was at any one  
5 time, but I have seen population as a reference. I have  
6 seen contributions of FFP and I have seen variations on  
7 it. It's not easy to be sure.

8 MR ANDERSON: I think, conveniently, we are going to have  
9 the author tomorrow. So we can ask him.

10 THE CHAIRMAN: If that is as hopeful as you suggest, I would  
11 be delighted.

12 MR ANDERSON: Very well, thank you very much, Dr Boulton.

13 A. I would like to know the answer to that question, as  
14 well.

15 THE CHAIRMAN: Mr Sheldon?

16 MR SHELDON: I have no questions for Dr Boulton. Thank you,  
17 sir.

18 THE CHAIRMAN: I can't undertake to make sure that you will  
19 get to know but perhaps Professor Ludlam will tell you  
20 if he hears it.

21 MS PATRICK: I think we are continuing with the B2 topic  
22 tomorrow and we are moving on to the C1 topic just now.

23 THE CHAIRMAN: Yes.

24 MR MACKENZIE: Sir, good afternoon.

25 We return to the topic of C1. Dr Dow has returned

1 to hopefully finish his evidence on this topic today.

2 So could I ask for Dr Dow to come to the stand.

3 DR BRIAN DOW (continued)

4 Questions by MR MACKENZIE (continued)

5 MR MACKENZIE: Dr Dow, welcome back. Sorry to keep you  
6 waiting. We are returning to your evidence on the topic  
7 C1, being the acceptance of blood from higher risk  
8 donors; in particular (a), prisoners and (b), those with  
9 a history of jaundice.

10 We had largely completed your evidence on the  
11 question of prisoners. I would like to just deal with  
12 one or two things before we move on. Firstly, there  
13 were two matters you wished to clarify firstly, from  
14 your own evidence on 18 March this year. So if we could  
15 please have the transcript for your evidence on 18 March  
16 at page 118.

17 We see in line 24 and 25, on page 118, we then went  
18 to a document [\[SGF0012836\]](#). Go on to the next page of  
19 the transcript, please. There is a letter from  
20 Dr Wallace, dated 26 June 1976. It was a letter from  
21 Dr Wallace to Dr McIntyre in the SHHD. I don't think we  
22 need to bring the letter back up but in short, I think  
23 Dr Wallace was providing Dr McIntyre with the results of  
24 his comparison between the RIA test and the RPHA test to  
25 make the case for funding to continue testing by RIA.

1 Is that correct, doctor?

2 A. Yes, what happened prior to this, they had been testing  
3 with CIEP for five years and on August 1975, they had  
4 started using RIA and this was nine months into that  
5 period of using RIA. They then asked for more money to  
6 continue testing with RIA.

7 Q. We covered all of that last time. So we don't have to  
8 go back to that. If we can scroll down through the  
9 transcript, please, and stop there and look at the sixth  
10 line down from the figures you had seen on screen. When  
11 you gave your evidence you gave an answer that:

12 "Using these figures, [you] would have to actually  
13 say that the IEOP technique was roughly about 35 to  
14 40 per cent sensitive as opposed to the 60 per cent  
15 I had estimated."

16 I think you explained to me today that you had since  
17 had a chance to read the whole letter and look at all of  
18 the numbers.

19 A. Yes.

20 Q. And you had wished to clarify your answer from lines 6  
21 to 8. What's the clarification you would like to make?

22 A. Well, the clarification is that the data in the letter  
23 is skewed and all you could look at is the new donors  
24 within that data to do a comparison of the various  
25 tests. Because obviously, five years' use of

1 counterimmuno-electrophoresis, we were obviously missing  
2 samples that would have been detected by RIA, and these  
3 regular donors kept coming back and were detected by RIA  
4 within the first nine months.

5 So you can only look at the new donors there. And  
6 the new donors, 13 were detected out of the 22 by  
7 counterimmuno-electrophoresis, and that's roughly  
8 equivalent to about 60 per cent. So really I can't  
9 actually agree with -- the way the data was presented to  
10 me, obviously it appeared that there was 35 to  
11 40 per cent but the data is skewed and it should really  
12 be 60 per cent.

13 Q. So having had a chance to read the whole letter, your  
14 evidence is that the sensitivity of the IEOP technique  
15 based on the figures in that letter would be about  
16 60 per cent?

17 A. Yes.

18 Q. I'm grateful.

19 The second matter for clarification, Dr Dow, I think  
20 you wished to make arose from the evidence of  
21 Dr McClelland, given on 22 March of this year at  
22 page 69. And if we could go to line 7, please, I asked  
23 Dr McClelland a question about the English findings of  
24 the higher incidence of Hepatitis B among prisoners and  
25 in line 11, Dr McClelland said:

1            "It is possibly just worth mentioning that one  
2            contributory reason for that is almost certainly the  
3            fact that almost all the donors in prisons will be first  
4            time donors. As opposed to donors from the community."

5            Et cetera. I think you wished to clarify something  
6            in that regard in respect of the west coast of Scotland?

7            A. Yes, I can't obviously comment on Dr McClelland's  
8            experience in Southeast Scotland but certainly in the  
9            West of Scotland the number of new donors in prisons  
10           would be round about 20 per cent.

11          Q. How are you aware of that, Dr Dow?

12          A. I'm aware of that because I did a trawl of all the  
13          prison donations between 1982 and 1984 and in that  
14          period there was 5,700 donations taken in West of  
15          Scotland prisons, and in a similar period from 1970 to  
16          1980 there were about 10,000 new donors only from  
17          institutions, which is prisons. So taking these  
18          figures, 5,700, total donations in two years, multiplies  
19          up to something like 25/26,000 in ten years, and taking  
20          the figures for new donors, which is already published,  
21          at being roughly 10,000 you are talking about roughly  
22          20 per cent.

23          Q. Is that an exercise you have carried out recently or  
24          carried out a number of years back?

25          A. Well, the trawl one, the donors between 1982 and 1984

1           was done probably about 18 months ago. The data on 1970  
2           to 1980 was already published within one of the  
3           publications from the West of Scotland.

4    Q. I understand. I think those were the only two matters  
5           you wished to clarify, Dr Dow. Is that correct?

6    A. Yes, really a point about these new donors I found was  
7           that when we look at the higher risk in  
8           institutionalised donors, which we have been going on  
9           about, five times the normal level, that's based on new  
10           donors. Obviously when you take prison donors as  
11           a whole, the risk is a lot less than what we were  
12           obviously going on about. It's not five times.

13   Q. Yes. No doubt, when we come back to read these reports  
14           again, we can bear all these points in mind.

15   A. Yes, thanks.

16   Q. Thank you. Moving on, please.

17   THE CHAIRMAN: I'm not quite sure I follow the explanation.  
18           I think that I had noticed that so far as new donors  
19           were concerned, it was five times.

20   A. Yes.

21   THE CHAIRMAN: But the point you make here, that if you take  
22           the totality of prison donors into account, the risk is  
23           a lot less than 5 times, I'm not quite sure I understand  
24           why that should be.

25   A. Because the regular donors in prisons have already been

1 screened for Hepatitis B on a regular basis.

2 THE CHAIRMAN: Right.

3 A. So really they could have given outside prison and then  
4 gone into prison to give their next donation.

5 THE CHAIRMAN: But one way or another, so far as return  
6 donors are concerned, in or out of prison, there is  
7 a prior screening test.

8 A. That's right. The return donors are obviously cleaner  
9 than new donors.

10 THE CHAIRMAN: I think that satisfies me.

11 MR MACKENZIE: I'm grateful, sir. Certainly, as ever, when  
12 we read the literature again, we have to compare like  
13 with like.

14 THE CHAIRMAN: So far as Dr McClelland's qualification is  
15 concerned, it rather assumes that people only go into  
16 prison once and give a donation early on, whereas you  
17 probably have a different experience.

18 A. I don't know what sort it is: whether they go in there  
19 and don't come out.

20 THE CHAIRMAN: You have got a lot of return donors for  
21 different reasons.

22 A. Yes.

23 MR MACKENZIE: Dr Dow, moving on, you had referred --

24 THE CHAIRMAN: Sorry, yes. Just trying to make sure that  
25 Professor James and I are on the same wavelength about



1           this.

2       MR MACKENZIE:  Dr Dow, moving on, you had mentioned last  
3           time around of becoming aware in March 1984 of the  
4           problem of drug use in prisons through reading  
5           a newspaper article.  That was referenced in your PhD  
6           thesis and I think we have managed to track that down.  
7           Could we have, please, document [\[PEN0160456\]](#).  It may be  
8           this hasn't found its way to court book yet but that's  
9           not a problem, we can put it in, but perhaps I can read  
10          it out to you to see if it sounds familiar.  It is  
11          headed, "Drug Boom in Prisons", and it's present in the  
12          Sunday Post.  It states:

13                 "Scotland's prisons are fast becoming the country's  
14                 largest drug centres.  In the last ten years, there has  
15                 been a 30-fold increase in the number of addicts  
16                 becoming inmates.  In 1973 only six people were  
17                 diagnosed as dependent on drugs on admission to prison.  
18                 The total for last year is expected to pass the 300  
19                 mark.  That's about 6 per cent of the prison  
20                 population."

21                 Et cetera.  I appreciate you are at the disadvantage  
22                 of not having a copy of the text in front of you.  In  
23                 fact I can just hand you a copy.  That may short circuit  
24                 things.  (Handed)

25       THE CHAIRMAN:  Mr Di Rollo, the Control of Drugs Act was

1           1972, was it?

2   MR DI ROLLO: My recollection was it was 1971, I have to  
3           say. Misuse of Drugs Act.

4   THE CHAIRMAN: 1971. I think we have to be conscious that  
5           drug testing might not have had a long history before  
6           the early 1970s.

7   A. I don't think that's quite the same one as I remember  
8           but ...

9   MR MACKENZIE: Unless, doctor, the Sunday Post carried two  
10          articles on that topic on that date which seems  
11          unlikely. In fact, the article actually appeared on the  
12          same page beside a photograph of a couple on their  
13          wedding day. We have actually cut that photograph out  
14          so it doesn't appear in the public court book. But if  
15          I give you the whole page of surrounding people it might  
16          help.

17   THE CHAIRMAN: We are carrying sensitivity very far at the  
18          moment it seems to me. (Handed)

19   A. That doesn't tally with my recollection of what was in  
20          the Sunday Post.

21   Q. What was your recollection then, doctor?

22   A. It was probably the same thing, it's just the style of  
23          this, it doesn't look like the Sunday Post. It looks  
24          more like a Dundee paper.

25   THE CHAIRMAN: Is that not the Sunday Post?

1 A. Not the Sunday Post, even The Telegraph or something  
2 like that, but probably the same story regardless, and  
3 I would agree with what's actually carried within it.  
4 It was certainly news to me at the time.

5 Q. That was the date, March 1984?

6 A. Yes, it was a Sunday, obviously.

7 Q. Yes. Moving on to a separate paper again. This is  
8 [\[PEN0020582\]](#). This would be a familiar paper to you,  
9 doctor, I think you were a co-author, "The prevalence  
10 and epidemiological characteristics of Hepatitis C in  
11 Scottish blood donors". I think in short, once testing  
12 for Hepatitis C of blood donors was introduced in,  
13 I think, September 1991, this paper reports on the  
14 results of the first six months of testing. Is that  
15 right?

16 A. That's correct, yes.

17 Q. I think we can see from this summary in the second  
18 paragraph commencing:

19 "In the period under study between September 1991  
20 and February 1992, 180,658 blood donors attended. The  
21 prevalence of HCV infection was 0.088 per cent ..."

22 Which is roughly 1 in 1,000.

23 A. Yes.

24 Q. The paper is also perhaps interesting, if we go over the  
25 page, please, looking at the risk factors of those

1 positive donors, at page 122 under "Results". In the  
2 second paragraph we can see that 159 donors were found  
3 to be infected with HCV. Do you see that? Sorry, it's  
4 the left-hand column under "Results", the second  
5 paragraph.

6 A. Yes.

7 Q. "151, which is 95 per cent of these donors responded to  
8 the invitation to attend for further counselling and  
9 follow-up. 101, 68 per cent, were male and the analysis  
10 of risk behaviours that might have been relevant to  
11 transmission of HCV infection is shown in table 1."

12 If we then go to table 1 at the top of the  
13 right-hand column, we can see the risk factors as  
14 follows: "intravenous drug use," 39 per cent;  
15 "transfusion," 15.2 per cent. Then it's "other  
16 parenteral exposure," 11.2 per cent. If we go down to  
17 just under the table, two lines down, we see what is  
18 meant by "other parenteral exposure" includes "tattoos,  
19 ear piercing and needlestick injuries." Do you see  
20 that?

21 A. Yes.

22 Q. Going back to the table just to complete it:  
23 "heterosexual contact," 8.6 per cent; "history of  
24 jaundice," 5.9 per cent; "non-UK origin," 1.9 per cent.  
25 Then down to "unexplained," 29.1 per cent. We can see

1 just below the table it's stated that some donors  
2 reported more than one risk factor?

3 A. That's correct, yes.

4 Q. I think, doctor, at this stage, given the time, I will  
5 then, I think, move on to the second part of this topic,  
6 which is the consideration of accepting donors with  
7 a history of jaundice. So if I could please have your  
8 statement on screen, which is [\[WIT0030094\]](#).

9 Sir, what I propose doing here, Dr Dow has set out  
10 in his statement quite fully various literature on this  
11 point, together with the main conclusions, and rather  
12 than have Dr Dow read or I read each paragraph, what  
13 I would intend to do, or seek to do, is simply take  
14 these paragraphs as read, provide all of the court book  
15 references, so people can cross-check the various  
16 literature and perhaps just choose two of the  
17 literature, which appear to me to, I think, provide  
18 a good summary of where things were at particular dates  
19 in terms of research into this subject. I think that  
20 may be a way of shortening things to make sure that  
21 there is an opportunity for cross-examination, while  
22 still getting the main points over.

23 THE CHAIRMAN: Well, we will try that. But Dr Dow, you  
24 ought to be very certain of your ability to come in if  
25 it doesn't look as if you are getting your full story

1 over.

2 A. Okay.

3 THE CHAIRMAN: We can easily mistake where we are in  
4 documents and it's your evidence I want at the end of  
5 the day. So we will stop briefly now to give the  
6 stenographer a chance to have a break.

7 Have you shared any of this with Dr Dow?

8 MR MACKENZIE: Any?

9 THE CHAIRMAN: Your approach?

10 MR MACKENZIE: No, I thought of it as the clock was ticking  
11 by and I was waiting.

12 THE CHAIRMAN: Perhaps you could have a word with him and  
13 tell him roughly what you are going to do and that might  
14 help us get ahead.

15 (3.17 pm)

16 (Short break)

17 (3.28 pm)

18 THE CHAIRMAN: Before we start, gentlemen. Tainted Blood  
19 have sent a CD containing what they describe as two  
20 files with quite a lot of material on facts and figures.  
21 I don't want to view this first myself. What I'll do is  
22 make it available to parties with a short note on the  
23 contents and ask you for your advice after you have read  
24 it as to how I ought to handle the material. I don't  
25 want to reject any material without at least having had

1 it seen and thought about by the interested parties. So  
2 we will make this available to you in the first place  
3 and you will let me know at some convenient time whether  
4 you have any advice for me. Yes?

5 MR MACKENZIE: Thank you, sir. I have discussed my proposed  
6 approach with Dr Dow who I think is happy to proceed as  
7 I intend.

8 So we had Dr Dow's statement on topic C1,  
9 [\[WIT0030094\]](#). The subject of the history of jaundice is  
10 dealt with in paragraph 20 through to the end of the  
11 statement. What I propose doing, sir, is going through  
12 each paragraph, taking it as read but providing the  
13 court book reference for it so those reading the  
14 transcript can identify the article being referred to,  
15 and for my part, accurately summarised by Dr Dow in his  
16 statement.

17 So in paragraph 20, the corresponding article is  
18 [\[PEN0020821\]](#). Then the next reference is in  
19 paragraph 23; our reference for that article is  
20 [\[PEN0020850\]](#). Then paragraph 24. Our reference for  
21 that article is [\[LIT0012155\]](#). That is one of the  
22 articles I will come back to shortly with Dr Dow.

23 Then paragraph 26. Our reference is [\[LIT0010430\]](#).  
24 Then paragraph 27, which I will come back to with  
25 Dr Dow. Our reference is [\[PEN0140067\]](#).

1 Over the page, paragraph 28, there is a reference to  
2 Dr Dow's PhD study. That runs to over 260 pages,  
3 unsurprisingly, and our reference is [\[LIT0013300\]](#). That  
4 completes, sir, the reference to the articles.

5 So if I may now take Dr Dow to three documents,  
6 which I think capture the thinking of the Blood  
7 Transfusion Service at the time, and Dr Dow can no doubt  
8 disagree with me if that's wrong.

9 The first article is [\[LIT0012155\]](#). From the top of  
10 the left-hand column we can see this is a letter in the  
11 Lancet of 21 July 1979, headed "Blood Donors with  
12 History of Jaundice". If we scroll, please, to the  
13 bottom of the left-hand column, we can see the authors  
14 were Dr Crawford and also yourself, Dr Dow, as well, as  
15 a co-author.

16 A. Yes, correct.

17 Q. Can you summarise for us, doctor, what was involved in  
18 this study?

19 A. Really it was a look at the Hepatitis B surface antigen  
20 status of ordinary donors against donors with a history  
21 of jaundice. It really was a comparison of the two  
22 groups. It really just showed that there was really no  
23 difference between the two, which is what John Wallace  
24 actually said a few years earlier in another  
25 publication.



1 Q. If we go to the final paragraph, please, we can see it's  
2 stated:

3 "We conclude from these results that a history of  
4 jaundice does not materially increase the prevalence of  
5 Hepatitis B surface antigen among blood donors and is  
6 likely to imply previous infection with Hepatitis A  
7 virus rather than with Hepatitis B virus."

8 You can put that to one side, please.

9 THE CHAIRMAN: Just before you go, there is no reference  
10 here, is there, to NANB hepatitis?

11 A. No, not at that time.

12 THE CHAIRMAN: So that would be another factor, if you were  
13 doing it retrospectively et cetera, that you might be  
14 looking at now?

15 A. Now, yes.

16 THE CHAIRMAN: Yes.

17 A. But at that time, non-A non-B was just coming to my mind  
18 at that particular time.

19 THE CHAIRMAN: The point of the last paragraph is that HAV  
20 is likely to have gone or what?

21 A. Say again?

22 THE CHAIRMAN: There has been a transient jaundice  
23 experience at some time and then --

24 A. Well, Hepatitis A is not really that important so far as  
25 post-transfusion hepatitis goes because the Hepatitis A

1 carriage doesn't happen. It's an acute infection.

2 THE CHAIRMAN: Yes.

3 MR MACKENZIE: Thank you, sir.

4 On the question of non-A non-B, doctor, it may also  
5 be useful, given the point has arisen, to look, please,  
6 at [\[LIT0010429\]](#).

7 We can see from the top of the right-hand column  
8 this is a letter in the Lancet of 15 March 1980. Again,  
9 it's on the topic of blood donors with a history of  
10 jaundice. This is from the Edinburgh transfusionists,  
11 in particular Dr Hopkins and colleagues. Is that right?

12 A. That's correct, yes.

13 Q. I think this reports a similar study. We can see from  
14 the start of the letter:

15 "Sir, -- The former policy of the Scottish Blood  
16 Transfusion Service was to reject as donors all persons  
17 admitting a history of jaundice. Lately this policy has  
18 been modified to exclude only would be donors with  
19 a history of jaundice within the previous 12 months:  
20 Donations are now accepted from most persons with  
21 a history of jaundice, provided they are HBsAg negative  
22 upon routine testing."

23 A little further down in the left-hand column:

24 "HBsAg was detected in 12 new blood donors -- one  
25 out of the 792 with a history of jaundice plus 18 out of

1 the 8467 with no such history. The single HBsAg  
2 positive donor among those with a history of jaundice  
3 was a drug addict ... Of the 36 donors who were  
4 followed up, 16 gave a history strongly suggestive of  
5 viral hepatitis, but in only six was it possible to  
6 obtain the results of HBsAg testing at the time of  
7 illness: all were negative. These findings show that in  
8 this community, a history of jaundice does not define  
9 a group with a high prevalence of HBsAg carriage."

10 Then the right-hand column, please, to the  
11 conclusion. The authors state:

12 "We conclude that in the donor population of  
13 Southeast Scotland, a history of jaundice is not  
14 associated with an increased risk of HBsAg carriage.  
15 This is in agreement with findings in the West of  
16 Scotland reported by Dr Follett and colleagues. The  
17 prevalence of antibody to Hepatitis A in our region is  
18 similar in donors with and without a history  
19 of jaundice."

20 Then the last sentence:

21 "This suggests that the viruses of non-A non-B  
22 hepatitis may be a significant cause of jaundice in this  
23 population."

24 Doctor, do you have any comments on that final  
25 sentence?

1 A. Yes, well, there are a few comments throughout that  
2 little letter -- that I couldn't actually get to grips  
3 with the mathematics in the second paragraph, I think it  
4 was.

5 Just scroll down a bit. The third paragraph:

6 "HBsAg was detected in 12 new donors. One out of  
7 the 792 with a history of jaundice, plus 18 out of 8467  
8 ..."

9 I don't know what's wrong there but that should  
10 either be 11 or the 12 new donors -- the 12 might be 19,  
11 I don't know.

12 THE CHAIRMAN: I wondered if it was just bad punctuation.

13 A. Certainly the figures don't fit.

14 THE CHAIRMAN: They don't fit.

15 A. Then going back to the Hepatitis A prevalence in the  
16 history of jaundice donors and normal donors that came  
17 out roughly the same within this particular study, but  
18 there is a study also by Dr Follett, Barr, Crawford and  
19 Mitchell, which is [\[LIT0010430\]](#), the one after this one,  
20 which actually gave the history of jaundice and normal  
21 donor Hepatitis A levels for the West of Scotland, and  
22 they were dramatically different.

23 MR MACKENZIE: What I'm interested in is the final sentence:

24 "This suggests that the viruses of non-A non-B  
25 hepatitis may be a significant cause of jaundice in this

1 population."

2 A. That was based on that Hep A prevalence being similar in  
3 history of jaundice donors and normal donors, 84 and  
4 78 per cent. What I'm saying is, the West of Scotland  
5 data on Hepatitis A prevalence in these two groups show  
6 a lot higher level in those with a history of jaundice.

7 Q. From looking at the report of the study in this letter,  
8 do you consider the authors had a sufficient evidential  
9 basis for what they state in the last sentence?

10 A. I don't know how many they actually tested. They just  
11 have:

12 "The prevalence of antibody to Hepatitis A ... is  
13 similar in donors with and without ..."

14 We need to actually know the figures. I know  
15 that Bob Hopkins at one point used to write papers based  
16 on 100, whereas the West of Scotland, we tried to have  
17 significant numbers like 1,000 or 2,000.

18 Q. In terms of looking at the Edinburgh data, as reported  
19 in this letter, do you consider the Edinburgh data  
20 supports or establishes what is said in the final  
21 sentence or do you consider the final sentence as more  
22 in the way of speculation, albeit perhaps informed  
23 speculation?

24 A. Purely speculation. Again, because we have contrary  
25 evidence in the West about the Hepatitis A prevalence.

1 Q. Did you read this letter at the time, do you remember?

2 A. I remember reading it at the time and obviously

3 dismissed it because our data did not fit.

4 Q. It depends which data one looks at.

5 A. I'm blinkered.

6 Q. Even putting the West of Scotland data to one side and

7 only looking at the Edinburgh data, as reported in this

8 letter, does that data establish or prove what is stated

9 in the final sentence?

10 A. I think it indicates that potentially non-A non-B

11 hepatitis could explain what they found. By having only

12 84 per cent of those with a history of jaundice having

13 Hepatitis A antibody and 78 per cent of normal donors.

14 Q. To be fair to the authors, they do say:

15 "This suggests that the viruses of non-A non-B

16 hepatitis may ..."

17 So they don't, I think, present it as the data

18 having establish that, they simply offer that --

19 A. They offer that as a possible explanation.

20 Q. In any event, you would say one has to have regard to

21 all of the data not just that from one study?

22 A. Yes. You don't believe one set of data from one group

23 of individuals. You continued to look around and have

24 an independent corroboration of that data before you

25 consider it as read.

1 Q. Yes. Thank you.

2 The next paper, doctor, is [\[PEN0140067\]](#). Again, I'm

3 sticking with the consideration given in the Blood

4 Transfusion Service to the question of blood donors with

5 a history of jaundice, and we can see this from the top

6 of the page, a letter in the British Medical Journal of

7 23 October 1982. Again, we can see the title of the

8 letter if we scroll down a little, "Blood Donors: the

9 History of Jaundice", and if we go to the far right-hand

10 column, please, we can see the authors come again from

11 Glasgow, Dr Barr and others including yourself, Dr Dow.

12 A. Correct.

13 Q. Then going back, please, to the start of the letter,

14 I think it is worth reading all of this letter to give

15 a flavour for the work, a consideration on this topic at

16 the time. This letter states:

17 "The leading article from Dr P M Jones ..."

18 Who was Dr Jones?

19 A. I think he was Newcastle but I'm not very sure. He

20 certainly was south of the border.

21 Q. Involved in transfusion, perhaps?

22 A. Yes.

23 Q. "... reopens the question --"

24 THE CHAIRMAN: Is this possibly Peter Jones?

25 A. Yes.

1 MR MACKENZIE: It might be sir, yes. Yes, I'm grateful:

2 " ... reopens the question of whether blood from  
3 donors with a stated history of jaundice is safe for  
4 transfusion."

5 I suppose we would have to see the content of the  
6 letter from Dr Jones, but it may be of interest in  
7 itself that at this time, October 1982, Dr Jones had  
8 written an article about the question of donors with  
9 a history of jaundice.

10 Reverting to the letter:

11 "In an earlier study from the West of Scotland, we  
12 found that these donors were much more likely to have  
13 had an infection with Hepatitis A virus than with  
14 Hepatitis B virus. In addition, we found that a history  
15 of jaundice was no more common among carriers of  
16 Hepatitis B surface antigen and hence was of little use  
17 as a marker of Hepatitis B infectivity. A history of  
18 jaundice is obtained from 2.8 per cent of blood donors  
19 in the West of Scotland."

20 Then the letter goes on to report on the current  
21 study:

22 "We have now studied a group of donors according to  
23 the age at which the jaundice occurred. Almost all the  
24 episodes of jaundice occurring before the age of  
25 13 years were due to Hepatitis A but about 20 per cent



1 of those with jaundice in adolescence or later had no  
2 markers for Hepatitis A or B. Other viruses can cause  
3 jaundice ..."

4 They are set out:

5 "... and many other agents can cause liver problems.  
6 We cannot therefore equate unexplained jaundice with  
7 infection by the elusive non-A non-B viruses."

8 Is that perhaps, to pause, doctor, a rejoinder or  
9 response to the last sentence of the letter by the  
10 Edinburgh authors we looked at shortly previously?

11 A. No, I think it was a response to Dr Jones' letter at the  
12 time. That was really what this was about.

13 Q. Yes, but could that equally be a response to the  
14 Edinburgh letter we looked at shortly?

15 A. I think the Edinburgh letter was in the Lancet, whereas  
16 this is in the British Medical Journal. So you are  
17 responding to whatever is in a particular journal.

18 Q. Yes, I understand. Reverting to this letter:

19 "We cannot therefore equated unexplained jaundice  
20 with infection by the elusive non-A non-B viruses.  
21 Indeed, it is uncertain whether sporadic non-A non-B  
22 hepatitis is caused by the same agent as the form of the  
23 disease transmitted by transfusion, and it is not known  
24 how often a carrier state follows sporadic infection.  
25 Furthermore, it is possible that as with Hepatitis B,

1 clinical jaundice may be an indicator of elimination of  
2 virus rather than carriage."

3 It goes on in the middle, half way through the  
4 middle column:

5 "In the last three years, this region has transfused  
6 nearly 400,000 donations of blood and their derivatives.  
7 Only 12 cases of overt post-transfusion hepatitis  
8 possibly attributable to non-A non-B agents have been  
9 identified and of these, four were haemophiliacs who had  
10 been receiving imported blood products in addition to  
11 Scottish large pool factor concentrate. None of the  
12 donors involved in the eight cases associated with red  
13 cell transfusion had given a history of jaundice and  
14 these cases could not have been prevented by the policy  
15 proposed by Dr Jones."

16 Then the right-hand column:

17 "As the sensitivity and specificity of serological  
18 tests for non-A non-B carriers have yet to be proved, we  
19 could find ourselves excluding 2.8 per cent of donors  
20 because of a history of jaundice ... the present British  
21 policy appears to be correct and any change could cause  
22 a serious loss of blood products when some regions are  
23 still struggling to make 80 per cent of the blood plasma  
24 they collect available for Factor VIII production."

25 In short, doctor, do you consider the case had been

1           made out on scientific grounds at that time for  
2           excluding blood donors with a history of jaundice?

3    A.   I felt there was no case to actually exclude these  
4           individuals at that time, based on the data we actually  
5           showed there: that the history of jaundice was mainly  
6           due to Hepatitis A. I took then those whose history of  
7           jaundice was before the age of 12.

8    Q.   Yes. What consideration was given to non-A non-B  
9           hepatitis, and in particular whether or how many, if  
10           any, donors carrying non-A non-B hepatitis could be  
11           excluded if all donors with a history of jaundice were  
12           excluded?

13   A.   If we excluded all the donors with a history of  
14           jaundice, I don't think we would have excluded many with  
15           Hepatitis C. They were a very small number.

16   Q.   Why do you say that?

17   A.   Again, because Hepatitis C, as we knew later on, tended  
18           to have only moderately high levels of ALT. Most of  
19           them didn't actually become jaundiced as such. They  
20           would have high levels of ALT but it didn't become  
21           icteric, as was the case of people with Hepatitis A or  
22           Hepatitis B. Indeed, the likes of cytomegalovirus and  
23           Epstein Barr virus that was mentioned in that letter, we  
24           did a trawl of the SCIEH database at that time and they  
25           actually showed the various symptoms for these viruses,

1 and 5 per cent roughly of people that were found to have  
2 infection with Epstein Barr virus or cytomegalovirus  
3 presented with jaundice.

4 Q. One final document I would like to take you to, please,  
5 doctor, is [\[SNF0011109\]](#). We can see, doctor, this  
6 document is headed, "Surrogate tests for non-A non-B  
7 hepatitis: a special report to regional transfusion  
8 directors", by yourself, dated May 1986. Do you  
9 remember writing this report, doctor?

10 A. Yes, I was prompted to write it by Dr Mitchell.  
11 I didn't actually attend the meeting when it was  
12 discussed. It was just a report I had to furnish for  
13 discussion purposes.

14 Q. Do you remember why you were prompted to write it?

15 A. I think it was topical at the time and it needed to be  
16 discussed, all the things within it.

17 Q. I think you had just completed a PhD --

18 A. Yes.

19 Q. On the question of surrogate testing for non-A non-B  
20 hepatitis.

21 A. That's correct.

22 Q. I think in this report, if we look about half way down  
23 we can see history of jaundice in the USA:

24 "Individuals with a history of prior jaundice are  
25 excluded because of the possibility of their jaundice

1 episode being due to non-A non-B and subsequently  
2 becoming chronic carriers of non-A non-B agent or  
3 agents. Exclusion of such individuals in the  
4 West of Scotland population would incur a loss of around  
5 2 to 3 per cent of blood donors."

6 Over the page, please, to page 2. I think you had  
7 considered in your study essentially three possible  
8 surrogate markers for non-A non-B hepatitis. One was  
9 donors with a history of jaundice, secondly, elevated  
10 ALT levels and thirdly the presence of anti-Hepatitis B  
11 core antigen?

12 A. Yes.

13 Q. Then if we look at the second paragraph:

14 "The effect of these strategies in identifying  
15 implicated donors involved in NANB PTH cases."

16 I think when you speak of these strategies, you  
17 refer to all three surrogate markers we have just  
18 mentioned, and you say in the report:

19 "The acid test for either of these three means of  
20 identifying potential non-A non-B carrier donors is to  
21 examine the effect, if any, they would have in  
22 identifying such donors amongst those implicated in  
23 reported cases of NANB PTH. Of the 65 donors implicated  
24 in 18 NANB PTH cases, only two had histories of jaundice  
25 and both were involved in the cases in which the

1 jaundice may have been caused by the effects of drugs  
2 rather than transfused blood."

3 A. Yes, correct.

4 Q. So did that essentially provide further support for the  
5 view that it would not be a materially effective  
6 strategy to exclude donors with a history of jaundice  
7 from donating blood?

8 A. That's right.

9 Q. Over the page, please, the final page. The conclusion  
10 states:

11 "The present UK policy of accepting donors  
12 with raised ALT levels (ie not routinely ALT testing),  
13 anti-HBc or histories of jaundice would appear to be  
14 correct. It would appear from the study that the  
15 introduction of such surrogate screening procedures  
16 would have little impact on reducing the already low  
17 level of NANB PTH cases at present reported within the  
18 West of Scotland region."

19 I think you have explained that this report was put  
20 before a meeting of the SNBTS directors perhaps, and we  
21 certainly know that at no point in the 1980s, for  
22 example, was the policy introduced of excluding donors  
23 with a history of jaundice.

24 A. No, but the thing was that ALT and anti-core was thought  
25 of being introduced in the United States at that time.

1 As a measure of producing non-A non-B, and we did  
2 actually make noises about anti-core testing ourselves  
3 in 1991, I think it is, or 1992, as a means of reducing  
4 the number of Hepatitis B post-transfusion hepatitis  
5 cases.

6 Q. But we will come back to that, I think, after the  
7 summer. In short, doctor, if we could perhaps just  
8 conclude by --

9 THE CHAIRMAN: Could we go back to the previous page just  
10 for a moment before you reach your conclusion?

11 MR MACKENZIE: Yes.

12 THE CHAIRMAN: Dr Dow, on the page before this, you have the  
13 paragraph right in the middle:

14 "Of the 65 donors implicated, in 18 NANB PTH cases,  
15 only two ..."

16 What test were you using to determine NANB hepatitis  
17 at that point?

18 A. These were cases of post-transfusion hepatitis, notified  
19 either to ourselves or through the hepatitis reference  
20 lab at the regional virus lab in Ruchill, where there  
21 was no evidence of Hepatitis B and there was not any  
22 evidence of Hepatitis A through IgM Hepatitis A testing.  
23 Some of these individuals -- there were paracetamol  
24 overdoses as well included because they had had  
25 transfusions. So unfortunately they were included

1           because they had had a transfusion.

2   THE CHAIRMAN:  As Professor James said, it is heterogeneous.

3   A.  Yes.

4   MR MACKENZIE:  Thank you, sir.

5           So finishing, doctor, with your statement, please,  
6           which is [\[WIT0030094\]](#), paragraph 30, over the page,  
7           please, at the bottom.  You state:

8           "In conclusion, exclusion of donors admitting to  
9           a history of prior jaundice would have excluded almost  
10          3 per cent of the donor pool at a time when SNBTS was  
11          attempting to be self-sufficient.  The data linking HBV  
12          with a history of jaundice was not scientifically proven  
13          and thus attempting to link non-A non-B hepatitis with  
14          a prior history of jaundice would even now seem  
15          implausible, especially when it is recognised that non-A  
16          non-B hepatitis has milder ALT elevations than either  
17          HAV or HBV."

18          Doctor, what I have sought to do to conclude is,  
19          looking at your evidence on this topic and also those of  
20          previous witnesses, sought to draw certain propositions  
21          together, which I would like to put to you to see if you  
22          agree or disagree or wish to revise or reformulate them.  
23          The first proposition is this, that from the evidence  
24          I derive that excluding donors in the 1970s and 1980s  
25          with a history of jaundice is unlikely to have



1 materially reduced the incidence of  
2 transfusion-associated Hepatitis C?

3 A. I would agree with that.

4 Q. Secondly, if we look at why that is, only approximately  
5 3 per cent of donors gave a history of jaundice and of  
6 those donors, that episode of jaundice may have been  
7 caused by a number of factors. Is that correct?

8 A. Correct, yes.

9 Q. In particular, including Hepatitis A.

10 A. Mainly Hepatitis A, yes.

11 Q. So mainly Hepatitis A, which we know is not blood-borne?

12 A. No, it can be blood-borne. It's very rare, though.  
13 There is only about a handful of cases in 30 or  
14 40 years.

15 Q. Yes. An episode of jaundice could also be caused by  
16 Hepatitis B.

17 A. Correct.

18 Q. For which we know there was screening introduced from  
19 the early 1970s.

20 A. That's right.

21 Q. An episode of jaundice could also be caused by  
22 non-hepatitis virus.

23 A. That's correct.

24 Q. For example CMV or EBV.

25 A. Yes.

1 Q. Thirdly, an episode of jaundice could in fact be caused  
2 by a non-viral cause.

3 A. Correct.

4 Q. For example, alcoholic liver disease, gallstones,  
5 reaction to medication and other causes.

6 A. That's right.

7 Q. The second one, I am afraid was quite long. The third  
8 one is short and it is this: most people who contract  
9 Hepatitis C do not develop jaundice.

10 A. The ones that are known about -- one or two obviously do  
11 but the vast majority, I think, do not actually have  
12 clinical jaundice at the time they come down with  
13 infection.

14 Q. So these propositions I have set out represent  
15 a reasonable summary of at least your evidence on this  
16 matter?

17 A. I would agree with that, yes.

18 Q. Sir, I have no further questions for Dr Dow.

19 THE CHAIRMAN: Mr Di Rollo?

20 Questions by MR DI ROLLO

21 MR DI ROLLO: Yes, thank you.

22 Dr Dow, there are just two points I want to take up  
23 with you. I think it would probably be best to get the  
24 transcript. It's at page 77 and page 78 of the  
25 transcript of your evidence.

1           It's the foot of page 77 and the top of page 78.  
2           I don't know whether that's the same passage that I have  
3           actually. No, it's not. I don't know what has gone  
4           wrong there. It is perhaps the page numbering.

5           The passage in your evidence is along the following  
6           lines, you said at a fairly early stage in your evidence  
7           that you realised the likes of prison donations were  
8           needed, actually to keep your stocks up. Without them  
9           obviously you would run into difficulties of supply.  
10          That's what you said.

11        A. That was my understanding at the time, yes.

12        Q. Right. What was that understanding based upon?

13        A. I would walk into the blood bank and see how much blood  
14          was there. There was a lot more there then than what  
15          there is now.

16        Q. There is no evidence that when any of the regions  
17          stopped taking blood from prisons, there was any  
18          difficulty in making up any shortfall. We have heard of  
19          no evidence of that kind.

20        A. You may well have heard no evidence but I have heard  
21          anecdotal evidence where we had to supply blood from the  
22          west through elsewhere in Scotland at times of critical  
23          need, as in the likes of Christmas, et cetera.

24        Q. Yes. I understand that. A decision was taken in  
25          Glasgow at some point to stop taking blood from

1 prisoners, and do you know if at that stage there was  
2 any difficulty in making up any shortfall from  
3 elsewhere?

4 A. I wasn't involved in supplying units of blood to  
5 hospitals, et cetera. I was really there to do testing.

6 Q. It doesn't seem to be -- and I'm just challenging the  
7 proposition really -- that prison donations were in fact  
8 required in any sense to keep stocks up. It may have  
9 been an impression that you had but I'm suggesting to  
10 you that the reality was that prison donations were not  
11 required for that purpose.

12 A. I can't answer that. I wasn't in the, you know, the  
13 supply of blood to the hospitals.

14 Q. I understand, all right.

15 The other thing I should suggest to you is that in  
16 this particular area we have had evidence from  
17 Professor Ludlam that a letter was sent to him by  
18 Dr Mitchell indicating that there was a surplus of  
19 factor concentrate in Glasgow, that he didn't need any  
20 more.

21 A. I have heard of that as well.

22 Q. Sorry, a letter was sent to Mr Watt, it was  
23 Professor Ludlam that gave that evidence. You have  
24 heard that?

25 A. I have heard that obviously through the Inquiry.

1 Q. That would tend to suggest that if there was a surplus,  
2 there wasn't a shortage of blood that needed to be made  
3 up by prison donations.

4 A. You are talking about two different things here. I'm  
5 talking about blood on the shelf, which is red cells or  
6 the remains of red cells, because the plasma has already  
7 gone through to the Protein Fractionation Centre, and  
8 what you are talking about is Factor VIII, the little  
9 bottles of Factor VIII that we made. The two things are  
10 completely separate.

11 Q. I can understand that but we have heard some suggestion  
12 that, in order to pursue self-sufficiency in Scotland,  
13 it was needed to take blood from prisoners, and the  
14 self-sufficiency of blood supply would also be going  
15 into making factor concentrates as well as blood on the  
16 shelf, as you put it?

17 A. We were plasma driven way back in the 1970s and 1980s.  
18 We were striving to get that 80 per cent target of  
19 plasma to send through to PFC to make the Factor VIII  
20 which was needed to become self-sufficient in Scotland.  
21 We were plasma driven.

22 Q. Can I just deal with another point then. You started  
23 your evidence this afternoon and indicated that you  
24 wanted to challenge the suggestion that in general  
25 terms, prison donors would be more likely to be new

1 donors as opposed to being repeat donors. Is that  
2 right?

3 A. No. I said the entire opposite to that.

4 Prison donors, if you went along to the session in  
5 the West, the number of new donors amongst them would be  
6 only 20 per cent.

7 Q. Yes. That's right. I'm sorry, I am not making myself  
8 very clear. I think the suggestion had been made by  
9 another witness, I think, in passing, that prison donors  
10 would be more likely to be donors for the first time.  
11 You are saying that that's not correct, that they would  
12 be repeat donors generally in the west. Is that right?

13 A. Certainly in the west.

14 Q. It does come as a surprise to me, I have to say, that  
15 the statistics that you have given us result in the idea  
16 that only 20 per cent of prison donors would be giving  
17 blood for the first time in Glasgow. So that means that  
18 80 per cent of prison donations would have been repeat  
19 donations, I assume.

20 A. Correct.

21 Q. That does, I have to say, come as a surprise to me,  
22 hearing that as I say, for the first time this  
23 afternoon.

24 But you have arrived at that by extrapolating,  
25 I think, not from the 5,000 or so donations that were

1           taken between 1982 and 1984, but by making certain  
2           assumptions about donations taken between 1970 and 1980.  
3           Is that right?

4   A.   Yes.  I have looked at the data we have on file between  
5           1970 and 1980, which amounted to only 10,000 new  
6           donations from prisons.

7   Q.   Are those new donations from prisons or new donations --  
8           you said from institutions.  Are "institutions" and  
9           "prisons" synonymous?

10  A.   They were synonymous, yes.  We use the word  
11           "institutions" to mean prisons.

12  Q.   You didn't go to any other places other than prisons?

13  A.   Such as?

14  Q.   I don't know.

15  A.   I don't know either.

16  Q.   Right.  So they may not be prisons that you are  
17           referring to between 1970 and 1980?

18  A.   Of course they were prisons.

19  THE CHAIRMAN:  We are not having trouble over young  
20           offenders' institutions?

21  A.   I would include them as prisons.

22  MR DI ROLLO:  You are assuming that the 10,000 new donors is  
23           reflected equally in the period between 1982 and 1984,  
24           that you can extrapolate from those two periods to the  
25           other.

1 A. From 1982 to 1984 there were 5,700 donations taken in  
2 that period I looked at, which was between something  
3 like April 1982 to March 1984.

4 Q. Right.

5 A. Probably in the March 1984 we were actually at the stage  
6 of stopping at that point.

7 Q. And do you know how many donations in total were taken  
8 between 1970 and 1980?

9 A. I can't because the 1970 to 1980, the total number of  
10 prison donations in that time, I certainly don't have at  
11 hand. I did try to do an exercise to try and go through  
12 all that but certainly it seemed to be roughly 2,000 to  
13 3,000 donations a year were taken from prisons in that  
14 period in the West of Scotland.

15 Q. Without knowing exactly what we're dealing with there,  
16 it is quite difficult to extrapolate from one period to  
17 the other?

18 A. Well, as I said, my extrapolation is more accurate than  
19 what was written down by other -- in the transcript  
20 book.

21 Q. I think the general point you are making is that one  
22 should not assume, I suppose, that a prison donation is  
23 a new donation. One can't make that assumption. So  
24 that --

25 A. What I'm trying to say is that you can't say that all



1 the prison donations were from new donors.

2 Q. I think that's probably about as best we can do?

3 A. When you look at the prison donations as a whole, only  
4 20 per cent, I'm saying, were from new donors.

5 Q. It is the 20 per cent I'm perhaps taking issue with.

6 A. The rest were from donors who had already gone through  
7 a Hepatitis B screen at some previous point.

8 THE CHAIRMAN: Perhaps, Mr Di Rollo, if you told Dr Dow why  
9 you are surprised, he might be able to comment.

10 A. We went back to these sessions on a regular basis. We  
11 were going to Barlinnie twice a year, and the same with  
12 quite a lot of the other institutions; it was on  
13 a regular basis we were going to them, and usually at  
14 holiday periods, to cover, obviously, when we had got  
15 shortfalls because our other donors didn't want to give  
16 blood.

17 MR DI ROLLO: I suppose it just seems surprising that there  
18 should be that amount of repeat business.

19 A. Our normal sessions at that time were roughly  
20 10 per cent new donors. That's the sessions outside  
21 prison.

22 THE CHAIRMAN: Some people would be in Barlinnie for quite  
23 significant periods of time.

24 A. They could have donated prior to going in there and,  
25 obviously, once they are in there, they go along and

1           give blood again.

2   THE CHAIRMAN:  It might be good for your appearance before  
3           the Parole Board if you've got a good record of giving  
4           blood.  You wouldn't know that sort of thing, Dr Dow, I  
5           suppose.

6   A.  And some of them, obviously, once they come out of  
7           prison, they give blood again.

8   THE CHAIRMAN:  Of course there are environmental and other  
9           factors within prison that can give rise to infection --

10   A.  That's true.

11   THE CHAIRMAN:  -- during the course of -- but what you have  
12           done is given us your best estimate?

13   A.  It's the best estimate, yes.

14   THE CHAIRMAN:  I doubt if we can go beyond that, Mr Di  
15           Rollo.

16   MR DI ROLLO:  I quite agree, I follow that.

17   THE CHAIRMAN:  Mr Anderson?

18   MR ANDERSON:  No, thank you, sir.

19   THE CHAIRMAN:  Mr Sheldon?

20   MR SHELDON:  No questions, thank you.

21   THE CHAIRMAN:  Dr Dow, thank you for coming back.

22   A.  Thank you.

23   THE CHAIRMAN:  I will read everything, even though we have  
24           only had little bits of it so far.  Thank you very much.

25

1 Presentation of outstanding matters on topic C1

2 MR MACKENZIE: Sir, there are no further witnesses today.

3 I have got about ten minutes' worth of miscellaneous  
4 matters to largely finish this topic but it need not be  
5 done now. We can easily come back at a time which is  
6 convenient to do that. It is entirely a matter for you,  
7 sir.

8 THE CHAIRMAN: If you are going to complete the topic in  
9 ten minutes, I'm sure that we should do that now.

10 MR MACKENZIE: I can complete the topic subject to one  
11 outstanding line, which relates to reports by the  
12 Secretary of State for Scotland on prisons and also  
13 reports by Her Majesty's Inspectorate of Prisons as  
14 well. That's the one outstanding matter.

15 THE CHAIRMAN: That's may be a self-contained chapter.

16 MR MACKENZIE: I think it is.

17 THE CHAIRMAN: I think we should go on with the  
18 miscellaneous points other than that.

19 MR MACKENZIE: I'm grateful.

20 Sir, the first thing was you had asked for a note on  
21 the various guidance documents on the selection of  
22 donors and the use of blood. That has now been done,  
23 sir. It has only very recently gone into court book.  
24 The reference is [\[PEN0120347\]](#) and this has been sent to  
25 the SNBTS, who have agreed it as being factually

1 correct, so I won't go through it. I think this does  
2 explain, I hope, all of the mysteries actually,  
3 including the different red and orange books. I think  
4 I need say no more about that at this stage, but clearly  
5 if any party has any further queries on that, we can  
6 seek to address that.

7 THE CHAIRMAN: Thank you very much. We will have to come  
8 back to the detail of it but that seems to provide a lot  
9 of information.

10 MR MACKENZIE: Thank you, sir.

11 Another point. Dr McClelland, on 22 March -- we  
12 don't have to go to this but on 22 March, at page 71/72,  
13 he referred to having seen a textbook by  
14 Professor Garrott Allen from 1972. In short,  
15 Dr McClelland said he couldn't remember having seen the  
16 1975 letter by Professor Garrott Allen to Dr Maycock but  
17 he had read Garrot Allen's book and we have provided now  
18 in court book an extract from that textbook, which is at  
19 [\[PEN0120164\]](#). We don't have to go to any of these  
20 documents now but, in short, it's to provide the  
21 reference which Dr McClelland spoke to. I think one  
22 will see that it really fits in very nicely with  
23 Dr McClelland's evidence on that.

24 Another loose end in that regard, sir.  
25 Professor Cash spoke to, in the United States of

1 America, the FDA not recommending cessation of the  
2 practice of collecting blood from prisons until 1995,  
3 and again we found a reference for that. It's  
4 [\[PEN0120173\]](#), which is a recommendation from the US FDA,  
5 dated 8 June 1995, and in particular recommendation 1.  
6 Again we don't have to go to that. It's really for  
7 completeness that's provided.

8 Sir, you may recall a reference to the letter dated  
9 1 May 1975 by Dr Yellowlees, the chief medical officer  
10 the England and Wales, on the question of continuing to  
11 collect blood from prisons. I think one can see the  
12 genesis for that letter if one goes to [\[SGH0030259\]](#).  
13 Again we don't have to go to that but, in short, this is  
14 a February 1975 draft of the second Maycock report, and  
15 if one goes to the first appendix of that earlier draft,  
16 one will see in relation to prisons pretty much the same  
17 text. That appears in Dr Yellowlees's letter of  
18 1 May 1975. By way of contrast, if one were to go to  
19 the final version of the second Maycock report  
20 in September 1975, which is [\[SGH0030079\]](#), one would see  
21 that appendix 1 no longer appears in the final version.  
22 Again, I think that will all be self-explanatory if one  
23 then looks at the documents in due course.

24 THE CHAIRMAN: So what one should understand is that the  
25 second Maycock report had material of this kind in it in

1           appendix 1. Then Dr Yellowlees writes as CMO and  
2           Maycock takes it out?

3 MR MACKENZIE: Yes, sir.

4 THE CHAIRMAN: Do we know anything more about the  
5           circulation of the Yellowlees letter in Scotland?

6 MR MACKENZIE: There was evidence at the time, sir, that it  
7           certainly went to the SHHD, who sent it to  
8           Major General Jeffrey. Certainly, I covered that at the  
9           time, sir.

10 THE CHAIRMAN: Yes, but is there anything that takes it from  
11           the General outwards to medical officers in the areas?

12 MR MACKENZIE: No, sir. As far as we can take it is that  
13           I think it was considered at a SNBTS directors meeting  
14           at the time but we have no evidence that it went beyond  
15           that.

16           There are three additional papers, sir, which  
17           I haven't put to any witness. They really, I think, are  
18           part of the general background, as opposed to being very  
19           much in the forefront, and that's because they all  
20           post-date events. I think it is worth the parties and  
21           you, sir, at least being aware of the papers.

22           The first one is reference [\[LIT0013258\]](#). It might  
23           be worth just briefly going to that, simply to see the  
24           heading, the authors and the subject matter. In short,  
25           this was a study of the incidence of Hepatitis C

1 infection in five Scottish prisons between 1994 to 1996.  
2 Obviously, that way post-dates the events we are  
3 concerned with but I think it is of some background  
4 interest. In short, sir, this study found a prevalence  
5 of Hepatitis C infection among prisoners of about  
6 20 per cent. The parties can no doubt read that paper  
7 for themselves in due course.

8 The second slightly similar paper relates to an  
9 English study. It's [\[LIT0013266\]](#). Again we can perhaps  
10 just see the paper to see the title and authors. In  
11 short, sir, this was an English study carried out in  
12 eight prisons in England and Wales between 1997 and 1998  
13 and this found a prevalence of antibody to Hepatitis C  
14 of 7 per cent. It's really quite a different finding  
15 from the Scottish figure: different tests used and  
16 detecting slightly different things. That's provided  
17 for what it is worth.

18 Then lastly, on a slightly similar vein, sir, is  
19 a paper looking at the background prevalence of  
20 Hepatitis C in England and Wales, which I think was  
21 touched on with the previous witness, and that's  
22 [\[PEN0020822\]](#). Given the time, I'm not going to go into  
23 this paper in detail, sir, but essentially it gives an  
24 estimated prevalence of Hepatitis C among the population  
25 in England and Wales of between 0.55 per cent and

1 1.07 per cent.

2 The one other thing of interest, I think, in this  
3 paper, is if we can, please, go to page 225, which is  
4 0828. Go on to page 225, please, and the bottom of the  
5 left-hand column, the paragraph commencing:

6 "Most of the HCV infections in the population ..."

7 It gives an interesting narrative about the drug  
8 abuse epidemic in England and Wales. To what extent  
9 that applies in Scotland isn't a matter we have heard  
10 evidence on but it is there and is of some background  
11 interest, I think. It has to be treated with some  
12 caution and I think it doesn't really go beyond what it  
13 says.

14 THE CHAIRMAN: Up to the top of the right-hand column,  
15 please? Yes.

16 Yes, thank you.

17 MR MACKENZIE: Two final matters. The second last matter:  
18 we had hoped that Dr McIntyre, a former medical officer  
19 of the SHHD, would be able to give evidence on this  
20 topic. Unfortunately, Dr McIntyre is unable to attend  
21 the hearings, so we will have to rest on his statement,  
22 which is [\[WIT0030013\]](#).

23 Finally, sir, the only, I think, outstanding matter  
24 under topic C1 is that we had promised to look at what  
25 reports there were on prisons, and in particular the



1 health of prisoners, including drug use. We have  
2 identified a number of, I think, quite helpful reports,  
3 which are presently going into court book and we will  
4 shortly be seeking to identify a witness via the  
5 assistance of the Scottish Government to certainly  
6 provide a statement and possibly, depending on the  
7 statement, come along to the hearing, sir.

8 THE CHAIRMAN: Thank you very much indeed. Is there any  
9 other business today? No?

10 So what's tomorrow?

11 MR MACKENZIE: We revert to B2 tomorrow, sir.

12 THE CHAIRMAN: And in human terms that means?

13 MR MACKENZIE: I knew you would ask me that, sir.

14 THE CHAIRMAN: Professor Cash?

15 MR DI ROLLO: And Dr Perry.

16 THE CHAIRMAN: And Dr Perry.

17 (4.25 pm)

18 (The Inquiry adjourned until 9.30 am the following day)

19	DR FRANK BOULTON (affirmed) .....	1
20	Questions by MS DUNLOP .....	1
21	Questions by MR DAWSON .....	87
22	Questions by MR ANDERSON .....	126
23	DR BRIAN DOW (continued) .....	131
24	Questions by MR MACKENZIE (continued) .....	131
25	Questions by MR DI ROLLO .....	162

1	
2	Presentation of outstanding matters .....170
3	on topic C1
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
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