1	Thursday, 5 November 2020
2	(10.00 am)
3	SIR BRIAN LANGSTAFF: Good morning, professor.
4	A. Good morning.
5	SIR BRIAN LANGSTAFF: Let me just say a couple of things
6	first, if I may, before Ms Richards starts questioning
7	you again, because we're meeting under new conditions,
8	as we all know, given the restrictions which were
9	introduced as from today. Those who are watching
10	remotely won't see, they never do see, the audience
11	which is here. Nor do you. You just see the same
12	faces. But for those who are watching out there and
13	for your information, the only people who are present
14	in the hearing room are the legal team supporting
15	Ms Richards, your own counsel, some technicians, and
16	a couple of members of Inquiry staff. There's no
17	public here. But they are watching online.
18	So this is the conditions under which we are
19	currently meeting. I'll continue to wear a mask
20	because that's what we ask people to do in these
21	premises, though it does interfere with talking
22	sometimes, which is why I take it down when I'm
23	talking to you.
24	Ms Richards.
25	
	1
1	and Adults and the Royal Free Hospital are all still

1		and Adults and the Royal Free Hospital are all still
2		using large amounts of BPL products and continuing to
3		order them. I suspect that these 3 centres all use
4		significant amounts of 8Y, which may present them with
5		a financial problem. I was able to implement our
6		policy rapidly because there were essentially no
7		attached revenue consequences. I hear that Frank Hill
8		will be wanting to move straight to Recombinant but
9		I worry that the other 2 centres were basically not
10		fully sold on the policy. If they don't implement
11		this policy it significantly undermines our position."
12		Do you know whether the anxieties expressed in
13		that letter, the concerns expressed in that letter,
14		continued, or did other centres implement the UKHCDO
15		recommendation?
16	Α.	Well, I think that at some point BPL withdrew their
17		products, and then there was a gap, substantial gap,
18		until they started to manufacture the same products,
19		using imported American plasma. I can't remember
20		exactly how long that took.
21		And the financial problem I'm alluding to is
22		because those centres that continued to use a lot of
23		8Y, 8Y was quite cheap, but it was also very popular,
24		it had a good viral safety record. It was also
25		reasonably all right on von Willebrand's disease. So

ed Blood Inquiry 5 November 2020		
1		CHARLES RICHARD MORRIS HAY (continued)
2		Questions by MS RICHARDS (continued)
3	MS	<b>RICHARDS:</b> Professor Hay, I want to pick up the picture
4		in relation to vCJD and the response to the risk of
5		vCJD and the various notification exercises.
6		We looked yesterday at your letter in
7		November 1997, and the meeting you described following
8		that. Your statement tells us that at some point
9		after that, at Manchester you were able to switch
10		products to those manufactured from US plasma fairly
11		quickly; is that right?
12	Α.	That's correct.
13	Q.	There is also evidence to suggest that that may not
14		have been the position universally for all centres.
15		Soumik, could we have on screen, please,
16		HCDO0000133_188, please.
17		This is a letter you wrote January 1998, it's
18		addressed to Dr Ludlam, and it's "Implementation of
19		our Recommendation on CJD". That is presumably
20		a reference to the UKHCDO Committee's recommendation
21		which you discussed yesterday afternoon?
22	Α.	It is.
23	Q.	Then you talk about:
24		"The commercial grapevine tells me that some
25		centres, particularly Oxford, Birmingham Children's
		2
		2
1		some centres were genuinely quite attached to the
2		product, it wasn't just because it was inexpensive.
3		But the fact that it was inexpensive meant that
4		for them to change to American products would have
5		incurred a considerable cost.
6		For me, that wasn't a problem because I had
7		already switched all my patients to high-purity
8		products so I was using more expensive products in any
9		case. I can't honestly remember how long the
10		situation went on.
11	Q.	Okay. We move, then, I think, to just before we

11	Q.	Okay. We move, then, I think, to just before we
12		get to the national notification exercise in 2004, you
13		had an exchange of correspondence with BPL in 2003.
14		Soumik, if we could have HCDO0000254_117,
15		please.
16		This is a letter that you wrote, in

17 May of 2003, to BPL, and it says that you were 18 recently notified by the Transfusion Transmitted 19 Working Party that your centre, Manchester, had 20 received batches manufactured from plasma pools 21 contaminated with plasma from patients who 22 subsequently developed vCJD, and you're expressing 23 here displeasure at not having been informed of this 24 directly by the manufacturer and having learnt of it 25 through this route of the Transfusion Transmitted

1		Disease Working Party rather than directly from BPL.
2		What had actually happened that gave rise to
3		this correspondence?
4	Α.	Well, it just struck me that there were various other
5		routes of communication that could have been used that
6		would have informed me much more quickly. It was
7		perfectly reasonable that they should inform the TTI
8		Working Party and they were coordinating the whole
9		thing. But had I been informed earlier I would have
10		acted earlier to identify the recipients of these
11		products.
12		And they had supplied these products to the
13		Manchester Centre through the Transfusion Service, and
14		either the Transfusion Service or the manufacturer
15		would have known that it had been supplied to me and
16		should and could have informed me earlier.
17	Q.	The next I think key event in relation to vCJD and
18		Haemophilia Centres and haemophilia patients was the
19		2004 national notification exercise.
20		Now, as I understand it, this was triggered by
21		a case of vCJD reported in the recipient of a blood
22		donation in December 2003, and then a second possible
23		case in July 2004. Is that correct?
24	Α.	That's correct. I mean, this was obviously a game
25		changer because up until this point, the possibility
		5

5

1	it means by being "at-risk" for public health
2	purposes. And then there are three levels identified:
3	high, medium, and (over the page) low.
4	We're told, in the third paragraph:
5	"The uncertainties underlying the assessment of
6	'risk' are great, and several precautionary
7	assumptions are involved. Therefore the 'at-risk'
8	threshold for public health purposes is not a precise
9	guide for advising individuals about their potential
10	additional risk of developing vCJD."
11	Then we can see in the bold print, there's
12	a recommendation of action to be taken. In relation
13	to those who fall within the high category:
14	"These batches should be traced and the
15	individual recipients considered 'at-risk' of vCJD for
16	public health purposes. The extent of individual
17	exposure to these batches should be documented.
18	"Medium: Efforts should be made to trace these
19	batches and assess the potential additional risk to
20	individual recipients to determine if special
21	precautions should be taken for public health
22	purposes. The extent of individual exposure to these
23	batches should be documented."
24	Then:
25	"Low: These batches do not need to be traced

1		of a transmission through blood transfusion was a
2		theoretical possibility, and there was a lack of
3		concrete proof that it could occur.
4	Q.	And then if we go, please, Soumik, to WITN3289110,
5		we're going to look at some of the documents,
6		professor, from the 2004 notification exercise.
7		So this is a letter of 7th September 2004 from
8		the CJD Incidents Panel, which your statement tells us
9		had been set up in 2000, and we can see from it, it's
10		setting out recommendations of the panel for tracing
11		and assessment of patients exposed to plasma products
12		using donations from individuals who subsequently
13		developed vCJD. We're told in the second paragraph it
14		was based upon a blood risk assessment carried out by
15		an external consulting firm or organisation which had
16		then been considered by the various committees who we
17		see described there, including the Committee on Safety
18		of Medicines. And then it reads:
19		"Batch specific manufacturing data from the
20		fractionators concerned has been used with the Risk
21		Assessment to estimate the potential vCJD infectivity
22		in each batch of implicated product. For each of the
23		major assumptions underlying the Risk Assessment, the
24		most precautionary option was chosen."
25		Then we can see the panel has identified what

1		and the individual recipients do not need to be
2		informed."
3		We will look at some of the other documents in
4		a moment but can you perhaps provide us with an
5		overview of what the response to this then was by
6		UKHCDO and individual Haemophilia Centre Directors.
7	Α.	Well, we were informed one way or the other, mostly by
8		the database and through the Transfusion Transmitted
9		Disease Working Party, of the batches that had been
10		implicated, and these changed with time, as further
11		patients presented with variant Jakob-Creutzfeldt
12		Disease, and we did our best to trace the ultimate
13		destination for all those products, who had received
14		them.
15		We obviously all the patients were written
16		to, including those who had not received British blood
17		products. The initial notification was to all
18		patients with bleeding disorders, not just those who
19		had had British products, because it was felt that
20		they would hear about this in the press and they might
21		worry that they would be affected in any case. So we
22		felt we had to write to everyone.
23		We had to speak to our surgical colleagues and
24		the hospital administration, because the measures
25		included, amongst those patients at high risk, certain

1 2

3

4

5

6

7

8

9

10

11

12

13

14 15

16

17 18

19 20

21

22

23

1	types of surgery had to be done with disposable
2	instruments. Endoscopes had to be quarantined if they
3	were used in high-risk individuals, so the notes had
4	to be noted in that way. And if the patient required
5	surgery, this became a consideration that had to be
6	dealt with. And we had to report back to the database
7	the risk level of each of our patients.
8	There are forms in the exhibits that show the
9	returns to the database which show the amount of each
10	batch that the patients had received, if they had
11	received any. And if they had not received any
12	implicated batch, that's also recorded. And the
13	outcome of the discussion with the patient is also
14	recorded, because this was a very unusual situation,
15	and in the Advisory Committee we had lengthy
16	discussions about how we should approach this, because
17	this was a condition for which there was no test and
18	there was no treatment. So we couldn't test the
19	patients to discover whether they had been exposed or
20	not. And even if we knew for sure that they had been
21	exposed, there was no treatment and we were unsure of
22	the likely natural history. Because, as things
23	unfolded, recipients of implicated blood transfusions
24	had developed variant Jakob-Creutzfeldt Disease as
25	long as eight and a half years after exposure. And

### 9

1		of every document but just to see the broad nature of
2		the accompanying documents.
2		1 , 0
		So, again, dated 7th September, this was
4		a table of the vCJD implicated batch numbers. So that
5		information identified the source in terms of
6		manufacture, PFC or BPL was identified. And then if
7		we go over to the third page, we can see we don't
8		need to go through the details of it the specific
9		batches. That information had all been gathered and
10		collated nationally, had it?
11	A.	Yes.
12	Q.	And then if we go, please, Soumik, to WITN3289114.
13		Again, we don't need to go to the detail of it,
14		but this is a clinical information sheet produced by,
15		amongst others, the Health Protection Agency. We can
16		see the date from the bottom of the page,
17		7 September 2004.
18		So this was, as it were, information for
19		clinicians to accompany the recommendations.
20	Α.	Yes.
21	Q.	And then if we go, please, to WITN3289115. We can see
22		here there was also same date, 7 September 2004 at
23		the bottom of the page again, a centrally prepared
24		patient information sheet. We'll just look briefly at
25		the various headings.

1		they were all homozygous. So there was the
2		theoretical possibility that had been raised that
3		heterozygotes might also develop variant
4		Jakob-Creutzfeldt Disease but perhaps after a very
5		prolonged period.
6		Now here we are 30 years down the line and that
7		hasn't happened, but it was in those early days raised
8		as a possibility. So far only homozygotes have
9		developed a problem and no recipients of pooled blood
10		products.
11	Q.	This was a national exercise organised centrally by
12		the CJD Incidents Panel with the notification, the
13		information we see here, the assessment, the strong
14		recommendation to recipients of this letter, which
15		included UKHCDO, to take the steps there set out?
16	Α.	And the National Haemophilia Database collating the
17		data and, amongst other things, reporting it on to the
18		HPA, which continues on a six-monthly basis to this
19		day.
20	Q.	If we just look at some of the documents that were
21		also provided by the CJD Incidents Panel at the time
22		of publication of its recommendations on
23		7th September.
24		We've got, please, Soumik, at WITN3289113.
25		We're not going to need to look at the detail

### 10

So 1, "What is variant CJD?" Then if we go over the page, "What's this about?" So it sets out what has led to the exercise, the first case reported: the death of a person from vCJD who had received a blood transfusion from a donor, so the first case of transfusion associated vCJD, and then a second probable case. We can see the bottom half of that page talks about "Why am I being contacted?" So it explains to

patients the purpose of communicating with them. If we go to the next page, we can see a description of what measures are already being taken. And then point 5, "And in relation to blood?" "Because it is uncertain whether vCJD can be transmitted by blood, the UK blood services have taken

a number of precautionary measures."

Those are then set out from 1997 onwards. We can see the bottom of the page the CJD Incidents Panel there referred to; it's established in 2000.

And then if we go over the page, we can then see under point 7 an explanation to patients of what has changed in terms of policy. The next page, "Who is affected?" So it

24The next page, "Who is affected?" So it25identifies the groups of those who may be affected by

1		this.
2		And then "How does this affect me?" It talks
3		about the practical implications for patients.
4		And then if we go over the page, we can see it
5		continues by giving patients information about the
6		extent to which they face a risk, that's point 11.
7		"Does this mean I'm going to suffer from vCJD?"
8		"Can I be tested? What happens if I develop
9		strange symptoms? Will this mean I won't be able to
10		get life insurance?" We can see from the top of the
11		next page that that's an issue that's already been
12		addressed. Insurers will not refuse insurance because
13		someone is categorised at risk for public health
14		purposes. And then it continues.
15		This was obviously a national leaflet prepared
16		for the benefit of patients.
17	Α.	Yes.
18	Q.	Did Haemophilia Centres send this information sheet to
19		the patients whom they were notifying, as far as
20		you're aware?
21	Α.	As far as I'm aware, yes.
22	Q.	Then if we go just to WITN3289118, please, Soumik.
23		This is described as the "Patient notification
24		exercise enquirer handling protocol."
25		If we go to the second page, at the bottom of
		13
1		in time, you were Vice Chair, Professor Hill was
2		Chair, and this letter was sent by him. But we can

1		in time, you were vice Ghair, Professor Hill was
2		Chair, and this letter was sent by him. But we can
3		see it's to all Haemophilia Centre doctors. It's for
4		urgent and immediate attention. And then we can see
5		in the first main paragraph reference to the toolkit
6		which I think are the documents that we have just been
7		looking at.
8	Α.	Yes.
9	Q.	And then the actions are:
10		"To brief Centre staff to ensure we can get
11		letters out to all patients so that they're given
12		comprehensive information at the same time. The
13		letter to patients needs some insertions, telephone
14		numbers, et cetera, and should go to all patients or
15		parents of children with haemophilia and other
16		bleeding disorders. If possible, use the letter as
17		sent. Some may wish to adapt because of local
18		reasons. Ensure you file copies in each patient's
19		notes."
20		Then this:
21		"It's felt that all patients need to be
22		informed, even those not affected so that they are
23		informed about the events and understand the
24		implications."
25		Does it follow from that that UKHCDO, in

1		the page under the heading "timing", we can see
2		a timed plan of action: 9 September, information will
3		be sent to haemophilia doctors, immunologists medical
4		directors of trusts. Then the plan for haemophilia
5		doctors and consultant immunologists looking after
6		patients with primary immunodeficiency to send out
7		patient letters on 20 September. And then a full
8		press briefing by the Department of Health planned for
9		21 September.
10		Certainly, the letters we've seen,
11		Professor Hay, sent to patients, many of them are
12		dated 20 September 2004. Again, as far as vou're
13		aware, was the expectation of UKHCDO and the VCJD
14		Incidents Panel that all Haemophilia Centres would
15		send those communications to their patients at the
16		same time?
17	A.	
18	А.	was determined, as far as I remember, by launching of
10		
		a Parliamentary question which was going to alert the
20		press the following week, so the whole thing had to be
21		rushed along. And it was strongly emphasised to
22		centres that this matter had to be dealt with as a
23		matter of urgency.
24	Q.	We can see that from the UKHCDO letter to directors at
25		WITN3289111. So this is 9 September. At this point
		14

1		relation to this exercise, had decided to go further
2		than the, as it were, minimum requirements of the VCJD
3		Incidents Panel because your proposal was to
4		communicate with every patient, whether or not they'd
5		ever received British products within the relevant
6		time frame?
7	Α.	That's an interesting question. I think I can't
8		remember whether the Incidents Panel wanted us to
9		write to everybody, or whether it was a UKHCDO
10		decision, to be perfectly honest. But I think,
11		whether it was or not, we certainly felt that we
12		needed to inform all patients because the patients
13		would not necessarily know whether they'd had British
14		blood products or not, and they might think they were
15		involved. And so when we spoke to the patients, we
16		gave all of them a certain amount of core information,
17		whether they were affected or not, and then put it
18		into a personal context.
19		So if we, for example, knew that they had not
20		been exposed to UK products during that period, we
21		could tell them that and say, "Well, now you know all
22		about all that we know about variant
23		Jakob-Creutzfeldt Disease, but it shouldn't affect
24		you". And with the others who had had British blood
25		products at that point, we were still in the process

1		of working out which batches were affected and
2		assessing the level of risk. And so, you know, you
3		wouldn't be able to attribute a level of risk at that
4		point, but you would be able to tell them whether
5		they'd had British blood products and might be
6		involved. And so I don't really know the answer to
7		your question, but that was our thinking.
8	Q.	And we can see the exposure assessment form that you
9		referred to at WITN3289116.
10		Again, we can see this is part of the
11		7 September 2004 production of documents, the date at
12		the very bottom of the page.
13		This is a form to be completed for all patients
14		with bleeding disorders. And then a copy should be
15		sent to the National Haemophilia Database. There's
16		the start question:
17		"Did the patient received any UK sourced pooled
18		factor concentrates or anti-thrombin between 1980 and
19		2001?"
20		"Yes" or "no" gives the answer to whether the
21		person is at risk of vCJD for public health purposes.
22		There's then an exposure assessment, so that's
23		an analysis undertaken by reference to each individual
24		patient.
25		Then over the page, we can see the last box
		47

### 17

1		were everythelming reasons to tall them, but the choice
•		were overwhelming reasons to tell them, put the choice
2	-	to them again.
3	Q.	Your statement tells us that not all patients could be
4		traced.
5		Do you know what steps were taken, first of all
6		at Manchester in your capacity as Director of the
7		Centre, to trace patients, or was that not a problem
8		that affected Manchester?
9	Α.	I don't remember it being a particular problem at
10		Manchester. There are always some patients,
11		particularly those with mild bleeding disorders, who
12		are lost to follow-up and need a lot of chasing.
13		I can't remember whether it was a particular problem
14		in relation to this.
15		There were also problems, of course, tracing
16		who had received the implicated batches; I detail in
17		my Section 9 response.
18	Q.	Then if we move from 2004 to 2006. Could we, Soumik,
19		have ABMU0000053, please. So if we just going
20		a little closer.
21		This is an email from you at 14 November 2006:
22		"VCJD and plasma products: look back and
23		patient notification."
24		This is being sent by you now as Chair of
25		UKHCDO to Centre Directors and you refer in the body
		······································

1		asks the question:
2		"Has the patient asked to know if they received
3		the implicated batch? When was the patient informed
4		if they'd received the implicated batch?"
5		The purpose of that last box was presumably to
6		ensure that patients received the information that
7		they wanted to but were allowed to choose not to
8		receive information if they didn't want to.
9	Α.	That's right. I started to explain that earlier but
10		didn't really finish. Because it was such an unusual
11		situation in that there was no test that we could
12		offer them and there was no treatment, we realised
13		that some patients might prefer not to be told. So
14		they were all provided with the background information
15		about variant Jakob-Creutzfeldt Disease, transmission
16		by blood transfusion, at the very least theoretical
17		risk of transmission through pooled blood products,
18		what we thought the risk was, the business about it
19		having only affected homozygotes who made up about
20		a third of the population and so on.
21		But in relation to their own exposure, they
22		were offered the choice of being told or not. But it
23		was important to document that choice, both in the
24		notes and centrally, so that you could continue to
25		respect that choice or, at the very least, if there

1		of the email to:
2		" two further batches of concentrate which
3		include donations from patients who subsequently
4		developed vCJD, relating to products released in 1988
5		through the Transfusion Service in Tooting, Wales,
6		Colindale and Birmingham, not previously notified
7		because it was not possible at that time to trace
8		their distribution. If you received these products,
9		you may have to notify your patients."
10		Then if we go over the page, we don't need to
11		go through the detail of it, but we can see this is
12		a letter explaining that there have been these two
13		further batches identified that weren't included in
14		previous notifications.
15		And is this right: essentially, what Centre
16		Directors were being asked to do in 2006 was to check
17		their records to see if they had received these
18		batches, and if they had, to then go through the same
19		exercise in relation to those batches as had been done
20		in 2004.
21	Α.	Yes, and we were also trying to stir up some centres
22		that had not responded, in our view, adequately to the
23		first request.
24	Q.	We then, I think, next see vCJD in 2007.
25		Soumik, could we have HCDO0000131_006, please.
		(5) Pages 17, 20

1	So again, this is an email from you. This is
2	January 2007. And then we see, if we go over the
3	page, a draft press release. So this tells us that
4	there's been a fourth and therefore presumably a third
5	case, because we'd previously looked at cases 1 and 2
6	having triggered the 2004 notification a fourth
7	case of vCJD associated with blood transfusion. So
8	this is a draft press release from the Health
9	Protection Agency.
10	And then if we go, please, Soumik, to
11	HCDO0000131_007. And zoom in on the top half of the
12	page.
13	This is an email from you in your capacity as
14	Chair of UKHCDO, 16 January 2007. You were,
15	I understand, in this email, notifying all UKHCDO
16	members about this fourth case. The second paragraph
17	explains that:
18	"The case contracted vCJD from the same donor
19	as the third case."
20	And then refers to the patient having been
21	still alive and manifesting clinical signs of
22	suspected vCJD eight and a half years after receiving
23	the blood.
24	"This is the longest incubation period reported
25	so far in relation to this mode of transmission.

### 21

2"This patient had been treated in the '90s with3several batches of UK sourced clotting factors,4including one batch of Factor VIII that was5manufactured using plasma from a donor who went on to6develop vCJD."7Then it explains that:8"The haemophilia patient was in his 70s when he9died of a condition unrelated to vCJD, 11 years and 110month after receiving the batch of implicated11Factor VIII."12Then the significance of this, we can probably13pick up from the last two lines of this page:14"This is the first time that vCJD abnormal15prion protein has been found in a patient with16haemophilia or any patient treated with plasma17products."18Then if we go over the page, we're told that19the case doesn't change the public health vCJD "at20risk" status of any patient, but then doctors,21directors, are asked to take these actions:22"Send the enclosed letter to all patients with23bleeding disorders (including those not at risk of24vCJD). Please do this as quickly as possible."25And then:	1	Then the second paragraph explains that:
<ul> <li>including one batch of Factor VIII that was</li> <li>manufactured using plasma from a donor who went on to</li> <li>develop vCJD."</li> <li>Then it explains that:</li> <li>"The haemophilia patient was in his 70s when he</li> <li>died of a condition unrelated to vCJD, 11 years and 1</li> <li>month after receiving the batch of implicated</li> <li>Factor VIII."</li> <li>Then the significance of this, we can probably</li> <li>pick up from the last two lines of this page:</li> <li>"This is the first time that vCJD abnormal</li> <li>prion protein has been found in a patient with</li> <li>haemophilia or any patient treated with plasma</li> <li>products."</li> <li>Then if we go over the page, we're told that</li> <li>the case doesn't change the public health vCJD "at</li> <li>risk" status of any patient, but then doctors,</li> <li>directors, are asked to take these actions:</li> <li>"Send the enclosed letter to all patients with</li> <li>bleeding disorders (including those not at risk of</li> <li>vCJD). Please do this as quickly as possible."</li> </ul>	2	"This patient had been treated in the '90s with
<ul> <li>manufactured using plasma from a donor who went on to</li> <li>develop vCJD."</li> <li>Then it explains that:</li> <li>"The haemophilia patient was in his 70s when he</li> <li>died of a condition unrelated to vCJD, 11 years and 1</li> <li>month after receiving the batch of implicated</li> <li>Factor VIII."</li> <li>Then the significance of this, we can probably</li> <li>pick up from the last two lines of this page:</li> <li>"This is the first time that vCJD abnormal</li> <li>prion protein has been found in a patient with</li> <li>haemophilia or any patient treated with plasma</li> <li>products."</li> <li>Then if we go over the page, we're told that</li> <li>the case doesn't change the public health vCJD "at</li> <li>risk" status of any patient, but then doctors,</li> <li>directors, are asked to take these actions:</li> <li>"Send the enclosed letter to all patients with</li> <li>bleeding disorders (including those not at risk of</li> <li>vCJD). Please do this as quickly as possible."</li> </ul>	3	several batches of UK sourced clotting factors,
<ul> <li>develop vCJD."</li> <li>Then it explains that:</li> <li>"The haemophilia patient was in his 70s when he</li> <li>died of a condition unrelated to vCJD, 11 years and 1</li> <li>month after receiving the batch of implicated</li> <li>Factor VIII."</li> <li>Then the significance of this, we can probably</li> <li>pick up from the last two lines of this page:</li> <li>"This is the first time that vCJD abnormal</li> <li>prion protein has been found in a patient with</li> <li>haemophilia or any patient treated with plasma</li> <li>products."</li> <li>Then if we go over the page, we're told that</li> <li>the case doesn't change the public health vCJD "at</li> <li>risk" status of any patient, but then doctors,</li> <li>directors, are asked to take these actions:</li> <li>"Send the enclosed letter to all patients with</li> <li>bleeding disorders (including those not at risk of</li> <li>vCJD). Please do this as quickly as possible."</li> </ul>	4	including one batch of Factor VIII that was
<ul> <li>Then it explains that:</li> <li>The haemophilia patient was in his 70s when he</li> <li>died of a condition unrelated to vCJD, 11 years and 1</li> <li>month after receiving the batch of implicated</li> <li>Factor VIII."</li> <li>Then the significance of this, we can probably</li> <li>pick up from the last two lines of this page:</li> <li>"This is the first time that vCJD abnormal</li> <li>prion protein has been found in a patient with</li> <li>haemophilia or any patient treated with plasma</li> <li>products."</li> <li>Then if we go over the page, we're told that</li> <li>the case doesn't change the public health vCJD "at</li> <li>risk" status of any patient, but then doctors,</li> <li>directors, are asked to take these actions:</li> <li>"Send the enclosed letter to all patients with</li> <li>bleeding disorders (including those not at risk of</li> <li>vCJD). Please do this as quickly as possible."</li> </ul>	5	manufactured using plasma from a donor who went on to
<ul> <li>8 "The haemophilia patient was in his 70s when he</li> <li>9 died of a condition unrelated to vCJD, 11 years and 1</li> <li>10 month after receiving the batch of implicated</li> <li>11 Factor VIII."</li> <li>12 Then the significance of this, we can probably</li> <li>13 pick up from the last two lines of this page:</li> <li>14 "This is the first time that vCJD abnormal</li> <li>15 prion protein has been found in a patient with</li> <li>16 haemophilia or any patient treated with plasma</li> <li>17 products."</li> <li>18 Then if we go over the page, we're told that</li> <li>19 the case doesn't change the public health vCJD "at</li> <li>20 risk" status of any patient, but then doctors,</li> <li>21 directors, are asked to take these actions:</li> <li>22 "Send the enclosed letter to all patients with</li> <li>23 bleeding disorders (including those not at risk of</li> <li>24 vCJD). Please do this as quickly as possible."</li> </ul>	6	develop vCJD."
<ul> <li>died of a condition unrelated to vCJD, 11 years and 1</li> <li>month after receiving the batch of implicated</li> <li>Factor VIII."</li> <li>Then the significance of this, we can probably</li> <li>pick up from the last two lines of this page:</li> <li>"This is the first time that vCJD abnormal</li> <li>prion protein has been found in a patient with</li> <li>haemophilia or any patient treated with plasma</li> <li>products."</li> <li>Then if we go over the page, we're told that</li> <li>the case doesn't change the public health vCJD "at</li> <li>risk" status of any patient, but then doctors,</li> <li>directors, are asked to take these actions:</li> <li>"Send the enclosed letter to all patients with</li> <li>bleeding disorders (including those not at risk of</li> <li>vCJD). Please do this as quickly as possible."</li> </ul>	7	Then it explains that:
10month after receiving the batch of implicated11Factor VIII."12Then the significance of this, we can probably13pick up from the last two lines of this page:14"This is the first time that vCJD abnormal15prion protein has been found in a patient with16haemophilia or any patient treated with plasma17products."18Then if we go over the page, we're told that19the case doesn't change the public health vCJD "at20risk" status of any patient, but then doctors,21directors, are asked to take these actions:22"Send the enclosed letter to all patients with23bleeding disorders (including those not at risk of24vCJD). Please do this as quickly as possible."	8	"The haemophilia patient was in his 70s when he
11Factor VIII."12Then the significance of this, we can probably13pick up from the last two lines of this page:14"This is the first time that vCJD abnormal15prion protein has been found in a patient with16haemophilia or any patient treated with plasma17products."18Then if we go over the page, we're told that19the case doesn't change the public health vCJD "at20risk" status of any patient, but then doctors,21directors, are asked to take these actions:22"Send the enclosed letter to all patients with23bleeding disorders (including those not at risk of24vCJD). Please do this as quickly as possible."	9	died of a condition unrelated to vCJD, 11 years and 1
12Then the significance of this, we can probably13pick up from the last two lines of this page:14"This is the first time that vCJD abnormal15prion protein has been found in a patient with16haemophilia or any patient treated with plasma17products."18Then if we go over the page, we're told that19the case doesn't change the public health vCJD "at20risk" status of any patient, but then doctors,21directors, are asked to take these actions:22"Send the enclosed letter to all patients with23bleeding disorders (including those not at risk of24vCJD). Please do this as quickly as possible."	10	month after receiving the batch of implicated
<ul> <li>pick up from the last two lines of this page:</li> <li>"This is the first time that vCJD abnormal</li> <li>prion protein has been found in a patient with</li> <li>haemophilia or any patient treated with plasma</li> <li>products."</li> <li>Then if we go over the page, we're told that</li> <li>the case doesn't change the public health vCJD "at</li> <li>risk" status of any patient, but then doctors,</li> <li>directors, are asked to take these actions:</li> <li>"Send the enclosed letter to all patients with</li> <li>bleeding disorders (including those not at risk of</li> <li>vCJD). Please do this as quickly as possible."</li> </ul>	11	Factor VIII."
14"This is the first time that vCJD abnormal15prion protein has been found in a patient with16haemophilia or any patient treated with plasma17products."18Then if we go over the page, we're told that19the case doesn't change the public health vCJD "at20risk" status of any patient, but then doctors,21directors, are asked to take these actions:22"Send the enclosed letter to all patients with23bleeding disorders (including those not at risk of24vCJD). Please do this as quickly as possible."	12	Then the significance of this, we can probably
<ul> <li>prion protein has been found in a patient with</li> <li>haemophilia or any patient treated with plasma</li> <li>products."</li> <li>Then if we go over the page, we're told that</li> <li>the case doesn't change the public health vCJD "at</li> <li>risk" status of any patient, but then doctors,</li> <li>directors, are asked to take these actions:</li> <li>"Send the enclosed letter to all patients with</li> <li>bleeding disorders (including those not at risk of</li> <li>vCJD). Please do this as quickly as possible."</li> </ul>	13	pick up from the last two lines of this page:
<ul> <li>haemophilia or any patient treated with plasma</li> <li>products."</li> <li>Then if we go over the page, we're told that</li> <li>the case doesn't change the public health vCJD "at</li> <li>risk" status of any patient, but then doctors,</li> <li>directors, are asked to take these actions:</li> <li>"Send the enclosed letter to all patients with</li> <li>bleeding disorders (including those not at risk of</li> <li>vCJD). Please do this as quickly as possible."</li> </ul>	14	"This is the first time that vCJD abnormal
<ul> <li>products."</li> <li>Then if we go over the page, we're told that</li> <li>the case doesn't change the public health vCJD "at</li> <li>risk" status of any patient, but then doctors,</li> <li>directors, are asked to take these actions:</li> <li>"Send the enclosed letter to all patients with</li> <li>bleeding disorders (including those not at risk of</li> <li>vCJD). Please do this as quickly as possible."</li> </ul>	15	prion protein has been found in a patient with
<ul> <li>Then if we go over the page, we're told that</li> <li>the case doesn't change the public health vCJD "at</li> <li>risk" status of any patient, but then doctors,</li> <li>directors, are asked to take these actions:</li> <li>"Send the enclosed letter to all patients with</li> <li>bleeding disorders (including those not at risk of</li> <li>vCJD). Please do this as quickly as possible."</li> </ul>	16	haemophilia or any patient treated with plasma
<ul> <li>the case doesn't change the public health vCJD "at</li> <li>risk" status of any patient, but then doctors,</li> <li>directors, are asked to take these actions:</li> <li>"Send the enclosed letter to all patients with</li> <li>bleeding disorders (including those not at risk of</li> <li>vCJD). Please do this as quickly as possible."</li> </ul>	17	products."
<ul> <li>risk" status of any patient, but then doctors,</li> <li>directors, are asked to take these actions:</li> <li>"Send the enclosed letter to all patients with</li> <li>bleeding disorders (including those not at risk of</li> <li>vCJD). Please do this as quickly as possible."</li> </ul>	18	Then if we go over the page, we're told that
<ul> <li>21 directors, are asked to take these actions:</li> <li>22 "Send the enclosed letter to all patients with</li> <li>23 bleeding disorders (including those not at risk of</li> <li>24 vCJD). Please do this as quickly as possible."</li> </ul>	19	the case doesn't change the public health vCJD "at
<ul> <li>22 "Send the enclosed letter to all patients with</li> <li>23 bleeding disorders (including those not at risk of</li> <li>24 vCJD). Please do this as quickly as possible."</li> </ul>	20	risk" status of any patient, but then doctors,
<ul> <li>bleeding disorders (including those not at risk of</li> <li>vCJD). Please do this as quickly as possible."</li> </ul>	21	directors, are asked to take these actions:
24 vCJD). Please do this as quickly as possible."	22	"Send the enclosed letter to all patients with
	23	bleeding disorders (including those not at risk of
25 And then:	24	vCJD). Please do this as quickly as possible."
	25	And then:

1		"It remains the case that vCJD has not been
2		reported in recipients of non-cellular pooled blood
3		products. This does not, therefore, change the advice
4		that we would offer our patients, and we were not
5		planning a mailing to patients."
6		Do I understand this to be you communicating
7		news of the fourth case to Directors, but because
8		there were no new implicated batches, there was no
9		further notification exercise to patients; is that
10		right?
11	Α.	Yes. It strengthened the evidence that variant
12		Jakob-Creutzfeldt Disease could be transmitted by
13		a whole blood transfusion, but it didn't actually
14		change anything that we would have advised the
15		patients, or any of our actions. And so it was felt
16		that a further notification exercise would be
17		superfluous.
18	Q.	Then there was then a further national notification
19		exercise in 2009. Soumik, could we have WITN3289130,
20		please.
21		We can see this is a letter from the Health
22		Protection Agency's CJD section, February 2009, to all
23		UK Haemophilia Centre doctors informing them of:
24		"A post-mortem finding of asymptomatic vCJD,
25		abnormal prion protein in a person with haemophilia."
20		ashormar priori protein in a person with hachtophilia.

1		"Make arrangements for appointments with any
2		concerned patients."
3		Then we can see it encloses information
4		leaflets for both patients and for healthcare staff.
5		I don't think we need to go through the detail
6		of those leaflets you've exhibited them to your
7		statement but can you give us, again, an overview
8		of what triggered this 2009 exercise and how it was
9		implemented by UKHCDO and by you in Manchester?
10	Α.	Well, the significance of this particular case remains
11		uncertain, but it was certainly potentially evidence
12		of possible developing variant Jakob-Creutzfeldt
13		Disease in a patient with haemophilia, presumably
14		secondary to exposure to an implicated batch. The
15		patient did, in fact, die from carcinoma and had no
16		neurological signs or symptoms, and prion protein was
17		not found in any other parts of the autopsy. So
18		there's no evidence of abnormal prion protein in the
19		patient's brain, so it was just one little corner of
20		his spleen.
21		So the significance of this wasn't known, but
22		there was certainly the theoretical possibility that
23		had the patient not died of cancer and, say, lived
24		another few years, he might have developed variant
25		Jakob-Creutzfeldt Disease. We'll obviously never

25

1		know.
2		I seem to remember that the patient was
3		atypical also in that I don't think he was
4		a homozygote for prion. I think he was heterozygous,
5		which was also a little odd. And, of course, it was
6		11 and a half years after his exposure to the
7		implicated batch.
8		So whatever the uncertainties surrounding the
9		interpretation of these findings, it was felt
10		reasonable to inform the patients that this was
11		perhaps evidence of transmission. So we wrote to all
12		our patients again.
13	Q.	And so, as with the 2004 notification, this was
14		a nationally organised and directed notification, to
15		the extent that there was actually a template letter
16		which we won't look at the leaflets but we'll look at
17		the letter. WITN3289132. This is the letter you were
18		being asked to send to patients.
19		We can see at the bottom it says it doesn't
20		change the way in which the patient will be treated.
21		So the purpose of this national notification
22		presumably was to ensure that patients had the
23		maximum, up-to-date information for them to understand
24		the position and apply it to their own personal
25		circumstances?
20		

### 25

1		although it's very rare, it's a pretty easy diagnosis,
2		and we hadn't spotted anything. So it seemed likely,
3		at that point, that even if some patients did become
4		affected, the numbers affected were likely to be quite
5		small.
6		And so I do not remember very much distress.
7		I don't suppose the patients were very happy about it,
8		but most of them seemed philosophical, and there
9		wasn't much they could do about it, to be honest.
10	Q.	There's a follow-up letter, then, in April 2009 from
11		you and Professor Hill to directors. WITN3289120,
12		please.
13		We can see it's a letter to update on the
14		current position. Point 1:
15		"The index patient investigation is continuing,
16		and risk assessments are awaited on the four potential
17		routes of acquisition of vCJD prion."
18		What does that refer to, please, if you can
19		remember?
20	A.	Err I'm not quite sure what that means.
21	Q.	Don't worry.
22	A.	Potential routes of acquisition of variant CJD prion.
23		I mean, there is always the possibility, of course,
24		that the patient had not acquired this from blood
25		products at all but from a beefburger, which you also
		• •

1	Α.	That's right.
2	Q.	And then we can see the UKHCDO letter from you to your
3		colleagues at WITN3289133, please, Soumik.
4		This is a letter dated 16 February 2009 from
5		you:
6		"Dear colleagues"
7		And it says:
8		"Unfortunately, due to circumstances beyond our
9		control, this notification exercise has to go live on
10		Monday, February 16, 2009."
11		And you go on to explain there that the timing
12		has had to be accelerated because the matter's being
13		picked up in the national press.
14	Α.	Yes. We preferred them to hear from us.
15	Q.	Can you recall the kind of responses that your
16		patients at Manchester showed in relation to this
17		second notification exercise?
18	Α.	Well, it varied. Some were distressed. Some were
19		philosophical. Most of them thanked me for telling
20		them. It did vary. Because apart from everything
21		else, this was a little different from HIV and
22		hepatitis C in that, you know, we had at this point
23		been following it for a long, long time already. And,
24		you know, we had been looking out for it, and frankly

# when Jakob-Creutzfeldt Disease presents clinically, 26

1		can't exclude. And I think that they may be referring
2		to that.
3		Clearly, the patient had been in receipt of an
4		implicated batch, and you would not be able to exclude
5		that as the route, but there were other possibilities.
6	Q.	And then the second point in the letter is about the
7		notification exercise. And you record here that:
8		"Many centres wish to only contact patients in
9		the 'at risk for health purposes' group. Some Centre
10		Directors, including some appointed since 2006,
11		realise the 'at risk' status of their patients had not
12		been determined, and patients who had received
13		implicated batches had not had their notes identified
14		as at risk for public health purposes. In some
15		instances, there are contaminated instruments that
16		need identification and public health follow-up to
17		identify other patients who have been put at risk."
18		So what is it that you, in your capacity as
19		Chair of UKHCDO and/or in your capacity as director of
20		the National Haemophilia Database by this time, what
21		had you learnt about the notification exercise that
22		gave rise to the need to write this letter?
23	Α.	Well, a number of Centre Directors had retired and
24		replacements had taken up post and, of course, were
25		not necessarily familiar with the previous

(7) Pages 25 - 28

24

25

1		notification exercise since they had been juniors when
2		this took place. And the most recent notification had
3		alerted them to all this and then they had gone away
4		to find out which of their patients were implicated,
5		and realised that the previous instructions had either
6		not been followed or not followed adequately. And
7		they had notified us, the Database UKHCDO, of this,
8		and there was a catch-up necessary.
9		They would also realise that if that was the
10		case, then, since at-risk patients had not been
11		identified, and had maybe had surgery, that they might
12		have had the sort of surgery that was listed as
13		a risk: gut surgery, that sort of thing, lymphoid
14		surgery, with non-disposable instruments, which would
15		have to be traced.
16	Q.	Then if we go over the page, we can see in the top
17		paragraph, you set out that you're aware:
18		" there have been no notifications of at
19		risk patients from some Centres to the [National
20		Haemophilia Database] [or some] Centres have not
21		accounted fully for the total units of implicated
22		products they received."
23		Without going through the detail of the rest of
24		the letter, as I understand it, the proposal here was
25		that the National Haemophilia Database would tell each

### 29

	UK-sourced BPL products. So this applied to a very
	small number of people using specific products. So it
	applied almost exclusively to two centres: the
	Royal Free and Oxford.
	The Royal Free in particular because it related
	to Factor XI concentrate, and the Royal Free looks
	after possibly the largest group of Factor XI
	deficient patients in the country, and they used
	concentrate to treat those patients rather than
	plasma. I've probably got the second largest group in
	the country, but my treatment practice is different,
	so it didn't affect us.
	So we realised that some patients had been told
	that they were at risk but were not, so we had to
	identify those, and notify them.
Q.	And we can see from WITN3289134, this is the letter
	that was then sent out by you on 7 April 2010 to all
	UKHCDO Centres and all haemophilia nurses. It reads:
	"I have been told that a centre [that was in
	fact the Royal Free] has mistakenly identified and
	notified a number of patients that they were at an
	increased risk of vCJD for public health purposes.
	These patients had, in fact, only been treated with
	BPL products manufactured from American sourced
	plasma. I am writing to all Haemophilia Centres
	Q.

	1		centre what information the database currently held in
	2		relation to patients at that centre insofar as
	3		relevant to this issue, so that centres could
	4		effectively work out what data was missing and what
	5		they needed to submit to the database. Is that an
	6		accurate summary?
	7	A.	Yes. that's accurate.
	8	Q.	There's a follow-up letter. I don't think we need to
	9		go to it, but there's a follow-up letter from this
	0		that you sent out in June 2009, that you've also
	11		exhibited to your statement.
			,
1	2		There was then, in 2010, an issue with
1	3		a mistaken or false notification. Can you outline
1	4		what happened there, please.
1	15	Α.	What happened there was that some of when we
1	6		originally worked out the period of risk, it was
1	17		expressed in terms of years. And the problem with
1	8		that is that towards the end of that period of risk,
1	9		BPL were beginning to manufacture products using
2	20		imported American plasma so that you had circulating
-	21		
-			at one and the same time BPL products that had been
_	22		manufactured from British or American plasma. And as
2	23		a result of that, some of the patients who had been

### 30

been treated with US-sourced BPL products rather than

notified that they were at risk, it turned out had

1		asking that all past vCJD risk notification are
2		checked because I suspect that this error may have
3		been repeated in other centres."
4		So the matter having been raised with you, as
5		I understand it, from other documents that you have
6		exhibited to your statement, by the Royal Free, all
7		centres were asked to do a check on their
8		notifications. Do you know how many centres or how
9		many patients turned out to have had the same problem
10		as the Royal Free?
11	Α.	Well, the main other centres that are mentioned that
12		were affected was Oxford. Most of the patients
13		affected were at the Royal Free. I can't remember the
14		precise number that were affected, but I think it was
15		something like 20 patients.
16	Q.	Then in 2013 there was what has been referred to in
17		the materials as a "de-notification exercise".
18		So if we look, please, Soumik at WITN3289136.
19		We can see this is letter from the Health
20		Protection Agency dated 24th January 2013 to Dr Dolan,
21		who by now had taken over as chair of UKHCDO.
22		"Reassessment of vCJD risk from UK produced
23		plasma products and de-notification of certain
24		recipients."
25		We can see there's been a review by the Health
		(8) Pages 29 - 1

(8) Pages 29 - 32

1	Protection Agency of the risk assessment which has led
2	to recommendations that:
3	" individuals who received Factor VIII and
4	Factor IX between 1990 and 2001 should remain notified
5	as 'at risk of vCJD for public health purposes'
6	
7	But:
8	"(ii) Individuals who only received plasma
9	products between 1980 and 1989 should now have their
10	treatment history reassessed to confirm this fact and
11	if it is confirmed, they should be de-notified."
12	Then if we go to the letter sent out by
13	Dr Dolan to Directors, it's WITN3289137.
14	This Dr Dolan, enclosing the HPA letter, the
15	recommendations. It says:
16	"Please do not take action immediately. What
17	we have agreed is that NHD [the National Haemophilia
18	Database] will review the records and generate lists
19	for each Centre. These lists will then be sent to
20	each Centre to be verified. There should be formal
21	communication between each Centre and [the National
22	Haemophilia Database] to confirm the risks and discuss
23	any errors.
24	"In the meantime the UKHCDO Executive, NHD and
25	Morbidity and Mortality Working Party will work on
	33

1		they changed the policy in relation to endoscopes and
2		disposable instruments. And so we all had to take
3		these out of quarantine.
4	Q.	I'm going to ask you about that in a moment, but just
5		in terms of this information, in this letter, does it
6		remain the case in terms of the current position, as
7		at 2020, that individuals who received Factor VIII and
8		Factor IX between 1990 and 2001 are regarded as at
9		risk of variant CJD for public health purposes?
10	Α.	Yes.
11	Q.	Then in terms of the practical consequences of being
12		so regarded, could we have, please, BART0000924.
13		This is an annual general meeting of UKHCDO,
14		13th October 2005. If we could go, please, to the
15		fourth page. No, sorry, that's the wrong document.
16		I think on my note it's the wrong document.
17		Well, we can look at this and pick up the
18		picture from this, I think.
19		Could you just go back to the front page,
20		please, Soumik. and could we go on
21		So this is a meeting on 16th May 2005. There's
22		then a second meeting in October that we'll look at.
23		If we could go on to the next page, please.
24		And the next page. Yes.
25		So under the heading "vCJD Issues", the second

1		producing information which will be of help in
2		discussions with patients who are to be
3		'de-notified'."
4		And without going through the detail of the
5		remaining documents on this issue, can you set out
6		what then happened in terms of the de-notification
7		exercise, from your perspective?
8	Α.	Well, we produced spreadsheets based on their previous
9		returns from each centre, which had lists of patients
10		that we considered could possibly be de-notified.
11		There was then a dialogue between each centre and the
12		database to fill out any missing data, and produce
13		a final corrected list of patients who should be told
14		that their risk had been reassessed and they were no
15		longer considered to be at public health risk.
16		This took a little time. I think it was quite
17		a lot of work for the database and for centres, but we
18		wanted to get it right, as you can imagine, given the
19		history of this exercise, and its complexity.
20		And then the patients were notified by the
21		centre. It was not clinically urgent. I think most
22		centres would have discussed it at the next patient
23		appointment.
24	Q.	And then in terms of the current position, does the
25	Δ	I forgot one important thing. The other thing is that

## 25 A. I forgot one important thing. The other thing is that

1		paragraph reads:
2		"Endoscopies: Charles Hay reported the trouble
3		Manchester is having with endoscopies. From an
4		ensuing discussion it was clear that different
5		policies are being pursued in different centres."
6		Then there's a reference to updating
7		information on the website.
8		What was the trouble that Manchester was having
9		with endoscopies and how was it resolved, if at all?
10	Α.	Well, the problem was that endoscopy, because there's
11		a lot of lymphoid tissue in the gut, was considered
12		a potential risk for transmission. So the worry was
13		that an endoscope could transmit variant
14		Jakob-Creutzfeldt Disease to the next patient that
15		used it, for example. I mean, endoscopes are
16		obviously cleaned in between use, but prion protein is
17		quite sticky, and we didn't have any evidence to know
18		whether the cleaning procedure for an endoscope would
19		get rid of prion protein were that instrument to be
20		contaminated with it.
21		There eventually emerged evidence suggesting,
22		for example, that metal instruments used during
23		surgery, if they were also cleaned several times,
24		probably would be safe, but that evidence wasn't
25		around right at the beginning.

1	So the instruction was that if you used an
2	endoscope in a patient that was considered at high
3	risk, you should guarantine that instrument and only
4	
	use it for that patient.
5	So we had a growing number of endoscopes with
6	my patients' names on them, that couldn't be used for
7	anybody else. And in fact, I had one patient with
8	type 3 von Willebrand's disease who required repeat
9	endoscopy using a double-balloon endoscope, which is
10	a particularly expensive instrument, costing £50,000,
11	and we actually brought one just for him.
12	Eventually my hospital had something like
13	three-quarters of a million pounds' worth of
14	endoscopes in quarantine. And that was at least
15	three-quarters of all the endoscopes in the hospital
16	and was threatening the endoscopy service with
17	collapse through lack of instruments.
18	Now, the situation was eventually improved
19	because the Department of Health made money available
20	for the purchase of additional instruments.
21	I think some other centres were perhaps not
22	following this policy as assiduously, but my
23	understanding is that it was a problem in most really
24	large Haemophilia Centres, like the Royal Free,
25	because if you have a large number of patients, you're

### 37

1		pessimistic, because if they had been correct, we
2		would have seen tens of patients with variant
3		Jakob-Creutzfeldt Disease, and we had seen none. And
4		so when they made the reassessment, they had to take
5		into account what we observed in the previous decade,
6		ie, zero, so they changed their assumptions and they
7		revised their assessment of risk downwards in general.
8		So we changed the period of risk and we also
9		revised downwards our assessment of the risk to those
10		who continued to be considered a public health risk.
11		So it was no longer felt necessary to
12		quarantine surgical instruments, to use disposable
13		instruments, and/or to quarantine endoscopes at all.
14	Q.	You referred to "they" reassessing the risk in that
15		regard, was that the Health Protection Agency?
16	A.	Yes, and the variant Jakob-Creutzfeldt Incidents
17		Panel. Yes. It wasn't our not our assessment.
18	Q.	We have heard both from individual patients and
19		through the statements of some clinicians that there
20		were centres where the practical implications of the
21		policy over the years that it was in place was that
22		there were occasions where surgery was deferred or
23		cancelled, often at short notice, because of the
24		concern about instruments. Was that a problem in
25		Manchester?
25		Manchester?

1		bound to need to endoscope some of them on a fairly
2		regular basis.
3	Q.	And you said, I think a few moments ago, when we were
4		talking about the 2013 de-notification exercise, that
5		there had been a change of policy in relation to
6		endoscopes.
7	Α.	Yes. Well, there was a change in policy overall,
8		because that reassessment was more wide ranging than
9		merely reassessing the period of risk. It reassessed
10		the level of risk.
11		Now, if you remember right at the beginning,
12		they admitted that when they assessed the risk of
13		transmission through blood products, way back at the
14		beginning of this exercise, the vCJD Incidents Panel
15		always used their most pessimistic assumption. Now,
16		I remember at the time wondering how they could make
17		any assessment at all because so little was known.
18		There were so many variables. And I saw the
19		calculations and the assumptions themselves ran to
20		two pages of A4 single-spaced ten point type. So the
21		only way that they could make any sort of assessment
22		at all was by making educated assessments and lots and
23		lots of assumptions.
24		Now, it became clear by 2009, far less the
25		later period, that these assumptions had to be far too

### 38

1	A.	I think it was a problem everywhere. It was a problem
2		that we tried to mitigate. Operations got cancelled
3		sometimes when people seemed to realise at the last
4		minute that the patient was at risk. You could
5		minimise cancellations by planning the whole thing, so
6		that you should identify who was and was not at risk
7		in advance of surgery, so that appropriate disposable
8		instruments would be available, for example.
9	Q.	Before we leave the topic of vCJD completely, there's
10		just one issue I wanted to ask you about arising out
11		of some of the exhibits to your statement and the vCJD
12		surveillance study. I'm not going to ask you about
13		the detail of that work because we have that covered
14		in documentation elsewhere, but if we have
15		WITN3289148, please.
16		This is a letter, it's from Professor Hill,
17		dated 22nd June 2007, but you've exhibited it and it
18		relates in part to the database so I'm hoping you can
19		help us with it.
20		It refers to Professor Lee having obtained
21		ethical approval for a number of studies relating to
22		vCJD, haemophilia and implicated products.
23		And then below the two numbered paragraphs
24		there's a paragraph that says:
25		"With regard to the post-mortem studies, we

(10) Pages 37 - 40

1	have obtained a list of patients with haemophilia
2	whose Death Certificates indicate that there may have
3	been a post-mortem or a post-mortem may occur. These
4	names are being linked on the Database and I will be
5	writing separately to enquire if you can check if
6	a post-mortem has taken place and whether or not
7	material is available. James Ironside has indicated
8	he will be prepared, as in the original submission, to
9	look at relevant material."
10	So there appears to have been a proposal to
11	study material obtained either from post-mortems that
12	have already taken place or from post-mortems that may
13	take place prospectively.
14	I just want to show you two further documents
15	and then ask you questions about it.
16	If we have please, Soumik, WITN329150.
17	So this is a draft consent form for seeking
18	consent from the next of kin for results of
19	post-mortem examination. Reference is made in the
20	bold print to the concern about vCJD and the proposed
21	prospective and retrospective surveillance study that
22	was being undertaken.
23	It contains provisions for the relative to
24	agree to the post-mortem examination being performed.
25	It explains samples will be sent to the National CJD

### 

1		"In the period 1985-1998, at least 88
2		postmortems were performed out of a total of 1,300
3		haemophilic deaths (as reported to the UKHCDO
4		Database). Wherever possible, centres should
5		establish the extent of their postmortem material and
6		refer relevant sections to the CJD Unit following
7		liaison with the study coordinator. Help with the
8		tracking and retrieval of specimens may be available.
9		"No additional consent is required for this.
10		"In the case of biopsy material available in
11		deceased patients, similar action should be taken.
12		Where the patient is still alive [presumably in
13		relation to biopsy material] consent would be required
14		for such an examination using the retrospective
15		analysis consent form".
16		It would appear that in relation to the
17		retrospective study of post-mortem material and,
18		indeed, biopsy material from deceased patients, there
19		was no intention to notify relatives or seek their
20		agreement. I'm seeking to establish this as a matter
21		of fact. Is that your understanding from this
22		material?
23	Α.	That's my understanding. I know that they took this
24		question to the Ethical Committee, and it was
25		discussed also with the CJD Unit in Edinburgh. And it

1	Surveillance Centre in Edinburgh, where they will be
2	examined, that the results will be available to the
3	relative. And then it provides:
4	"It is your decision as to whether you wish
5	to be informed specifically of the results of the
6	tests for vCJD."
7	And then provisions made for the relative to
8	sign.
9	As I understand it, that addresses the question
10	of obtaining consent from the next of kin for
11	post-mortems postspectively, so any post-mortems that
12	might be undertaken following the production of these
13	documents.
14	If we go, please, Soumik, to WITN3289151. We
15	can see this is a further document relating to the
16	proposed vCJD surveillance study. We can see data is
17	going to be collected through the National Haemophilia
18	Database.
19	If we go to the third page, please, Soumik.
20	We can see, under the heading "Prospective
21	study of postmortem material", provision is made for
22	consent to be obtained from relatives, and we've just
23	looked at a sample form.
24	In relation to the "Retrospective study of
25	post-mortem and biopsy material", it says this:

### 

1		was the Ethical Committee's opinion that we didn't
2		need to. I wasn't involved in that, but I know that
3		this issue was examined.
4	Q.	Do you know whether in your capacity as director of
5		the Manchester Centre or in your capacity as director
6		of the National Haemophilia Database, the extent to
7		which centres hold post-mortem material that would
8		have been covered by this study?
9	Α.	Well, that's part of the problem because I don't think
10		that they do. You know, after the Alder Hey scandal,
11		retention of material was dramatically reduced. The
12		Human Tissue Act has a lot to say about the retention
13		of material. And so retrospectively there is little
14		or nothing available.
15		And the sort of deposit, tiny deposit, of
16		prion protein in the spleen of that patient that we
17		reported in 2009 would not have been picked up by
18		a standard autopsy. A standard autopsy would have
19		completely missed it. It's not a microscopic
20		appearance that we're talking about. It's carefully
21		slicing up the spleen and using a very specific stain
22		to see what you're looking for. So you have to be
23		looking for that specifically.
24		So frankly, the chance that this would have
25		picked anything up was relatively slight anyway. So

(11) Pages 41 - 44

1 2		I don't think there were large amounts of retained material.
3	Q.	Do you know what the position is in relation to
4	α.	Manchester specifically when you became director in
5		'94
6	A.	I'm sure we had nothing. I know that I as
7	7	a centre, we contributed nothing to this study.
8	MS	<b>RICHARDS:</b> Sir, I note the time, and I'm about to move
9		on to another topic, so would this be the right moment
10		to take the break?
11	SIR	BRIAN LANGSTAFF: Yes, it would. We'll take a break
12		for half an hour as usual, allow you to get a cup of
13		coffee, and we will be back at quarter to 12.
14	MS	RICHARDS: Thank you, sir.
15	SIR	BRIAN LANGSTAFF: Quarter to 12.
16	(11.	.16 am)
17		(A short break)
18	(11.	46 am)
19	SIR	BRIAN LANGSTAFF: Yes.
20	MS	RICHARDS: Professor Hay, I'm going to ask you next
21		a handful of questions about the functioning of
22		UKHCDO, to your knowledge, in light of the roles
23		you've held within UKHCDO, and about the National
24		Haemophilia Database.
25		Could we please have on screen, Soumik,
		45
1		a member, it was a member of Haemophilia Centre
2		Directors. So although the initials of the
3		organisation have remained the same throughout this
4		period it's at this point that the membership was

- 4 period, it's at this point that the membership was
  5 widened to include all doctors involved in haemophilia
- 6 care. So it becomes the UK Haemophilia Doctors
- 7 Organisation.
- 8 **Q.** Prior to this, and if you don't know the answer to
- 9 this, because it may predate '87, then please say so,
- 10 were there any materials that set out the way in which
- 11 UKHCDO was organised or would function in any written12 materials?
- 13 A. Not as far as I'm aware.
- 14 Q. Sorry, professor, carry on.
- A. Well, you know, I might have missed something but
  I have read a lot of the older minutes, recently.
- 17 Q. Then if we go to page 6, we can see here there's
- 18 a list of regional centres. Now previously we've --
- 19 I've been referring to, and they were referred to in
- 20 the minutes, as "Reference Centres". This seems to
- 21 include what were the Reference Centres but add
- 22 a handful of other centres such as Liverpool,
- 23 Newcastle, Norwich, Truro, and Lord Mayor Treloar
- 24 College. Was this the point at which the concept of
- 25 Reference Centres changed to a concept of regional

1	WITN3289082.
2	This is a constitution for the United Kingdom
3	Haemophilia Centre Directors Organisation dated
4	September 1991, and if we go over the page we see what
5	was there being set out, it's:
6	" non-profit making. It exists to promote
7	the provision of the higher standards of care for
8	patients with Haemophilia and other Inherited Bleeding
9	Disorders.
10	"Its functions and purposes also include -
11	"a) the collection and analysis of statistics;
12	"b) the initiation of research;
13	"c) the provision of professional advice to
14	other bodies;
15	"d) the diagnosis and treatment of inherited
16	thrombotic disorders within those Centres which elect
17	to participate in this activity."
18	Now you became a member of UKHCDO in 1987, so
19	about four years before this. As far as you know, was
20	this the first time there had been some form of
21	written constitution?

written constitution?
A. Yes, this corresponded with the organisation becoming
a registered charity, and we took advice and decided
we needed a constitution partly for that reason.
We also reviewed the membership. When I became

1		centres and became slightly broader?
2	Α.	I think that had happened already, at an earlier
3		stage. The Reference Centres were only ever about
4		five centres. I think they included Sheffield,
5		Manchester, Oxford, the Royal Free and St Thomas', and
6		that was about it. Maybe Cardiff, I'm not sure.
7	Q.	Cardiff and Edinburgh
8	Α.	Yeah well, yeah. They were centres of reference
9		and the Organisation of Haemophilia Care in the UK
10		changed from time to time. There was a health service
11		circular HSC197630, I think which described the
12		Organisation of Haemophilia Care in the
13		United Kingdom, and I think at that stage divided
14		Haemophilia Centres into Reference Centres,
15		Haemophilia Centres, and Associate Centres.
16		And that was subsequently changed with
17		HSG9330 93, I can't remember the second name the
18		second number which introduced the concept of
19		Comprehensive Care Centres and Haemophilia Centres,
20		depending on the level of service that they provided,
21		and giving criteria for the designation. And that was
22		subsequently audited, so that if you wanted to become
23		a Comprehensive Care Centre you had to have an audit,
24		and the level of service you were able to provide was
25		audited anyway.
		- •

1	Q.	And in terms of the chair of UKHCDO, this constitution
2	ч.	provided for an elected chairman with a three-year
3		office that could be extended to six years.
4		Do you know, prior to this, what the
5		arrangements were for selecting the chair even?
6	Α.	I think they were more informal. This formalised
7		things. I think the chair I'm not entirely sure,
8		to be honest, because I couldn't come across anything
9		written.
10	Q.	That's all right. In terms of I'm sorry, carry on.
11	Α.	I think the chair would be elected by affirmation in
12		the past. It can still happen, because what happens
13		is that the chair sends out an invitation and anybody
14		can apply, and if there are more than if there is
15		more than one applicant, and they have to have
16		a proposer and seconder, then an election takes place,
17		of the entire membership. So all the members vote.
18		If there's only one applicant, and they are
19		agreed, then they may be elected unopposed.
20		What people frequently do is they canvas to
21		discover what their support is and then they may or
22		may not apply, depending on how much support they feel
23		they've got. Similarly for the other post holders,
24		the treasurer, the vice-chairman, the secretary.
25	Q.	Over the time of your involvement with UKHCDO, so

### 49

1		And prior to being a charity, that was fine,
2		but once we were a charity, you couldn't continue in
3		this way. And so the UKHCDO limited company was
4		formed, initially to deal with the membership fees and
5		to deal with the annual general meeting, and, at
6		a later date, also took under its arm the National
7		Haemophilia Database.
8		Now, in the very early stages of the
9		organisation, shortly after being formed, the
10		organisation did receive some funding from the Medical
11		Research Council, predominantly to look at hepatitis,
12		but I don't know that it received very much direct
13		funding from either the NHS or the Department of
14		Health.
15		Latterly, during my involvement, we did receive
16		funding from the Department of Health, partly to
17		support our involvement with national procurement and
18		various other projects.
19	Q.	So is this right, and please correct me if I'm wrong,
20		that the Department of Health does not provide
21		a regular ongoing amount of funding to UKHCDO, but has
22		funded UKHCDO to undertake or work on particular
23		projects? You mentioned national procurement; I think
24		I've seen some reference in the papers to UKHCDO's
25		work in relation to recombinant, there having been

1		either the period from '87, since you've been
2		a member, or '92, since you've been an officeholder,
3		how has UKHCDO been funded as an organisation?
4	Α.	Well, it has very little funding. It's a registered
5		charity. Charities are not allowed to trade. Before
6		that, its only source of income was the annual general
7		meeting, which generally generated a profit of
8		something of the order of £20,000 to £30,000. When
9		this new constitution became into being it was also
10		decided that the members should pay an annual
11		membership fee of $\pounds 20$ . That brought in something of
12		the order of £1,500 to £2,000. It was recently
13		abandoned because it was considered that it was more
14		trouble to collect than it was worth.
15	Q.	Again, over the time that you've been involved, to
16		what extent has the organisation received funding from
17		the Department of Health?
18	Α.	Well, the charity hasn't received very much funding.
19		After it became a charity, the organisation had to
20		form a trading arm. This is very common amongst
21		learned societies and so on, if they're registered as
22		a charity, because the source of the profit for the
23		annual general meeting would be industry and BPL
24		coming along with a stall and giving sponsorship for

coming along with a stall and giving sponsorship forthe meeting.

1		possibly some funding in relation to that.
2	Α.	Yes, yes, that's correct. When I took over the
3		database, the big problem was it had previously run
4		with no funding per se but had effectively been
5		supported by the Oxford Health Authority in that they
6		had paid the salary of Rosemary Spooner and
7		a part-time secretary who helped Rosemary Spooner.
8		Those were the only paid staff running the database
9		back then.
10		Now, when I took it over, it appeared to me
11		that the database is withering on the vine and for it
12		to be sustainable it would have to be brought up to
13		date and to produce more interesting data, because we
14		produced an annual report at that point, but it wasn't
15		producing very much research, and the data wasn't
16		timely enough to be of interest to the Department of
17		Health.
18		As far as I could see, the data would be of use
19		for Department of Health planning purposes, which
20		would benefit the patient group as a whole. And so
21		I approached the Department of Health and had
22		conversations with, amongst others, Julia Stallibrass
23		to talk about the potential for getting funding from
24		the Department of Health, and she very reasonably said
25		to me what I've expected, and that was, "Well, you've

1		got to produce something of interest, and we would
2		think about it."
3		And so at that time we passed the hat around
4		industry and for a year or so we funded the database
5		through unrestricted grants from various suppliers.
6		Then there were these project grants that came
7		along, but funding was insecure, which is, to be
8		honest, the fate of disease databases, many of which
9		fold after a short period of time, through lack of
10		funding, and we clearly wanted a regular income stream
11		so that the database could develop and become more
12		useful. And the Department of Health did facilitate
13		this. Apart from providing us with project funding
14		for various projects that were obviously important,
15		they facilitated discussions with the commissioners so
16		that the commissioners now provide us with a lot of
17		funding, which we charge them on a pro rata basis
18		according to the population served, so we get funding
19		from NHS England, the lead purchaser, which I think is
20		the London Consortium, NHS Scotland, and NHS Wales.
21	Q.	You referred to there being, in the early stages of
22		the establishment of the new database, your words
23		I think were "unrestricted grants from various
24		suppliers".
25	Α.	Yes.

53

1		the several companies shared the cost to support
2		research into risk factors for Factor VIII inhibitor
3		development. Sometimes they come to us with a request
4		for an analysis, for example of how their products are
5		used, and we would provide them with an anonymised
6		aggregate report focusing on the use of their product,
7		which is useful market data, and we would charge them
8		for that.
9		Sometimes they need this to deal with an
10		argument we had with NHS England, for example, in
11		which case the data is provided to NHS England and to
12		the pharmaceutical company, exactly the same data, but
13		the pharmaceutical company will have to pay for it.
14		An example of that is the recent discussion
15		between Sobi and NHS England about the relative
16		efficacy of their extended half life Factor VIII, and
17		whether, because of its extended half life, you may
18		need fewer units, and whether their product reduces
19		the annualised bleed rate in the patients using it,
20		for example.
21		And that's the sort of question, to be honest,
22		we welcome, because it's a question that's of interest
23		to everybody. And it helps NHS England to make its
24		own planning decisions.
25	Q.	Do you know whether there is any record of amounts

Q.	First of all, by "suppliers" you mean pharmaceutical
	companies?
Α.	Yes, that's exactly right. Yeah.
Q.	What do you mean by "unrestricted grants"?
Α.	An unrestricted grant is an unconditional grant. I've
	always felt it was they're always described as

- always felt it was -- they're always described as
  "unrestricted grants". I've always felt that it was
- probably the wrong word to use, but there you are.
- 9 These are grants that are given without conditions,
- 10 which would be an absolute prerequisite for the
- 11 organisation.
- 12 Q. And other than funding from pharmaceutical companies
- 13 towards costs of the National Haemophilia Database,
- 14 what other funding has UKHCDO received from
- 15 pharmaceutical companies, to your knowledge, over the
- 16 years you've been involved. There's the sponsorship
- 17 of the AGM.
- 18 A. Yes.
- 19 Q. Has that continued to receive pharmaceutical company
- 20 support?
- 21 A. Yes.
- 22 Q. And what other kind of matters are funded by
- 23 pharmaceutical companies?
- 24 A. Well, sometimes we get unrestricted grants from
- 25 industry to fund non-commercial research, for example

1		received by UKHCDO, either from pharmaceutical
2		companies or the Department of Health, prior to 1987?
3	Α.	I don't know of any such record. The organisation was
4		running on a far more amateurish basis compared with
5		now. I mean now the database has a manager.
6		Obviously since we've been operating as a company, we
7		have had a board of directors. Their accounts are all
8		audited and have to be submitted to Companies House,
9		and we have detailed financial records from them.
10	Q.	I want to ask you a little more about the National
11		Haemophilia Database itself. In what year was the
12		database formally established and management
13		transferred from Oxford to Manchester?
14	Α.	Well, the database was established about the same time
15		that Haemophilia Centres were established, way back in
16		1968. And it started under the leadership of Rosemary
17		Biggs, who was the then Centre Director in Oxford and
18		an international authority on blood clotting in the
19		UK. In fact, I think the first clotting textbook
20		I bought was written by her. And Charlie Rizza worked
21		with her. He took it over when she retired, and
22		initially they were attempting to address simple basic
23		questions that were not known. For example, how many
24		patients with haemophilia are in the UK?
25		And initially, it was very much focused on

1	haemophilia A and B. And in the early years of the
2	database, they didn't consider any other diseases, not
3	even von Willebrand's disease, for several years.
4	I'll give you a history of all of this in the final
5	chapter of UKHCDO's rule 9 response.
6	The database developed a little bit over
7	subsequent years. And then in about 1999, I became
8	more involved with the database because it needed to
9	be upgraded technically, and I employed a software
10	engineer who had written the Haemophilia Centre
11	information system that I used in my centre, amongst
12	other things. And we went down to Oxford to assess
13	its technical requirements and, from that point on,
14	liaised closely with Miss Spooner, who was running it.
15	And then in 2001, she retired. It might have
16	been 2002. But her imminent retirement precipitated
17	a bit of a crisis because, as was the case right
18	across the UK, Oxford Health Authority reviewed all
19	its posts as they felt they could and resisted
20	attempts from outside organisations to get them to pay
21	for what was a national function. So, you know, this
22	is a little district Health Authority, and it's
23	employing one and a half people for a national
24	function, and it didn't want to continue to do that.
25	So her post was threatened with not being refilled.

### 57

1	started in a vary different alimate. And back in
	started in a very different climate. And back in
2	1968, there was no data protection legislation, and
3	since we were not conducting interventional research,
4	I think it was felt perfectly reasonable to collect
5	and hold this data.
6	There was some data protection legislation
7	prior to 1998, but the 1998 Act harmonised this
8	legislation across Europe and tightened things up
9	considerably. And I was a member of the Information
10	Technology Working Party and then chairman of the Data
11	Management Working Party, both of which fulfilled the
12	same role as a sort of oversight committee for the
13	database.
14	And the Information Technology Working Party,
15	chaired by Brian Colvin in the late '90s, began to
16	address this question. And I think we began to think,
17	well, we weren't keeping the database a secret; the
18	Haemophilia Society knew about it and so on, but we
19	suspect that many of the patients did not.
20	I think you've taken evidence from previous
21	medical witnesses who have told you that they don't
22	think that patients were being asked about the
23	database back at that time, and I think that that is
24	probably correct.
25	So, you know, as with so many historic

1		So the organisation had to consider the future
2		of the database, and so I was the chairman of the Data
3		Management Working Party at that point. And we put up
4		a proposal. The organisation summoned Oxford and
4 5		
-		Manchester to put rival proposals to the executive and
6		the Advisory Committee, and then they decided that
7		they preferred my proposal, and so the database was
8		moved to Manchester.
9	Q.	Now, one of the issues that has arisen in relation to
10		the database over the years in the various minutes
11		that we have amongst the Inquiry's materials is the
12		question of patients' consent to information about
13		them being provided to the database or being held by
14		the database.
15		In some of the materials that you have produced
16		over the years, what appears to be said is that prior
17		to 2000, there was no consent process in relation to
18		the collection of that material, and it was the Data
19		Protection Act coming into force that then triggered
20		a series of debates that play out through the minutes
21		of various meetings about what form that consent
22		should take. Is that an accurate summary?
23	A.	I think that is an accurate summary, but I think
24		a little context might be helpful.
25		Like many historic databases, the database
20		

### 58

<ol> <li>databases, it was a matter of catching up and taking</li> <li>advice on what was reasonable, and opinion on what was</li> <li>reasonable did change with time. So we established</li> <li>around 2000 our opinion was that the patients</li> <li>needed to be actively informed about the database, the</li> </ol>	as
<ul> <li>reasonable did change with time. So we established</li> <li>around 2000 our opinion was that the patients</li> </ul>	as
4 around 2000 our opinion was that the patients	
5 pooded to be actively informed about the detabase, the	
5 needed to be actively informed about the database, the	
6 data that was being held, the uses to which it was	
7 being put, and of course their rights under the Data	
8 Protection Act of 1998. Although the Act is dated	
9 1998, there is always a gap before the conditions come	
10 into force. But we needed to inform the patients that	
11 they had rights under the 1998 Act, and that these	
12 included the right to have their data withdrawn.	
13 Now, my personal starting point to take advice	
14 was to go to the Information Commissioner. Now, the	
15 Information Commissioner was based in Data Protection	ı
16 House, which is on the main street, or off the main	
17 street in Wilmslow, about three or four miles from	
18 where I am now. So it was particularly convenient to	
19 make an appointment to go and speak to a case worker	
20 to outline our situation with them, and to outline our	
21 proposals for addressing it. They were extremely	
22 helpful.	
23 They felt that the NHS purposes to which we	
24 were putting our data, any reporting to the NHS that	
25 took place of course, at that time, there was very	

(15) Pages 57 - 60

25

1	little did not require any form of consent. Just
2	as you don't give consent when you go along to a
3	hospital or the GP, but it is assumed that they will
4	handle your data and that they will handle your data
5	securely. But any further purposes, for example
6	research or sharing anonymised data with third
7	parties, would require consent.
8	There then followed a debate about what the
9	nature of that consent should be. Should it be and
10	of course a lot of this consent would have to be
11	obtained retrospectively because we had held those
12	patients' data for a considerable period of time
13	anyway.
14	Should that consent be written consent, or
15	would implied consent be adequate? Now, implied
16	consent is informed consent, as for written consent,
17	but with an opt-out. And that was the pattern that
18	was adopted by disease databases right across the UK.
19	And the Data Protection Registrar considered that that
20	was adequate, and so that was the form of consent that
21	we had. But we had to have a process whereby we made
22	sure that the patients were aware of the database and
23	their right to an opt-out.
24	So we produced a series of leaflets. I have
25	included all of the leaflets as exhibits to my rule 9

### 61

1	this and then they may have questions.
2	So when we sent the leaflets out, and you'll
3	see this also in my exhibits, it went out with
4	
	a protocol, "How to use this leaflet", basically. And
5	they were asked that either the nurses or the doctors
6	give this leaflet to the patient to read before
7	they're seen so that they can read it, digest it, take
8	it away, and they've got an immediate opportunity to
9	ask either their haemophilia doctor or their nurses
10	anything more that they might want to know about the
11	database.
12	We also put this leaflet on our website, on the
13	website of the Haemophilia Society, and we have
14	a hyperlink between the Haemophilia Society website
15	and the UKHCDO website. And we have, for a number of
16	years now, included a complete list of all the data
17	points that we collect on our website so that everyone
18	can look at that. You can go on our website and
19	explore it if you wish. And you can see from the
20	minutes that this whole process was reviewed at
21	regular intervals.
22	From 2013, we recognised that we had a problem
23	in that NHS Digital, who provided us with death
24	certification data, became more difficult to deal with
25	in a number of different respects. They questioned

1	response. And you will see that they were reviewed at
2	irregular intervals throughout that period and
3	reissued, and each time we would print something like
4	30,000 copies, distribute them to centres, centres
5	could request further copies if they ran out, and we
6	recommended that they should not be posted to patients
	, , , , ,
7	because you don't know if they've been received or
8	what response there should be, but should be given to
9	them in an opportunist way. By that I mean when
10	opportunity arises.
11	This was another specific point that I
12	discussed with the Information Commissioner and,
13	indeed, subsequently with the NHS Research Authority
14	and Ethics Committee because patients, particularly
15	with mild bleeding disorders, are not seen very often.
16	So getting this information to the patients could take
17	quite a long time, and I had to know that that was
18	acceptable.
19	In general, both the NHS Research Authority and
20	the Ethics Committee did not favour posting these
21	things to the patients, and that's a position
22	I entirely agree with because you don't know if it's
23	been received, and perhaps most importantly, the
24	recipient doesn't have the immediate opportunity to

have their questions answered, because they may read

### 62

1	whether our consent process was adequate. That's one
2	thing. And we sought advice from them. Now, I know
3	from my conversations with other disease databases
4	that our experience with NHS Digital at that time was
5	not unique; it was par for the course. Our problem
6	was that you couldn't get consistent advice from them.
7	We had difficulty contacting the same person twice in
8	a row. We had difficulty contacting anybody, so we
9	didn't know which path to take. And they stopped
10	sending us death certification data, and they
11	suggested to us eventually that, rather than dealing
12	with them, we should go to the NHS Research Authority.
13	So I had a correspondence with the NHS Research
14	Authority Confidentiality Advisory Group, which are
15	based in Skipton House, Elephant & Castle, and this
16	culminated in a meeting that I went to with their
17	Confidentiality Advisory Group, in 2017, and we
18	discussed this for an hour-and-a-half.
19	Now the other thing that was happening in the
20	background was that GDPR was looming, and that would
21	also change the Data Protection Act in certain
22	fundamental ways, one of which was that an opt-out was
23	no longer considered adequate. Consent had to be
24	affirmative. And therefore you needed an opt-in. So
25	that clearly would change our approach.

(16) Pages 61 - 64

22

23

24

25

1	The meeting with the NHS Research Authority
2	Confidentiality Advisory Group was very constructive
3	and they confirmed that they didn't think that we
4	needed to have any form of consent for the NHS
5	purposes to which we put our data, ie, the increasing
6	number of reports that NHS England, for example, were
7	requesting of us.
8	They asked whether I thought it would be
9	possible to get written informed consent from all our
10	patients. Now, there are 30,000 of them. I made it
11	clear that we clearly couldn't get consent from
12	patients who had died, and we didn't want to cull the
13	database of patients who had died, because their data
14	was nevertheless very useful, in all sorts of ways,
15	not least for the patients, many of whom have
16	requested data on their deceased relatives, as is
17	their right. And we have sent at least 500 reports
18	out, and it would be unfortunate if we'd had to cull
19	that data.
20	I made it clear to them that some of the
21	patients were not seen frequently. They asked me over
22	what period I felt I could obtain written informed
23	consent from the whole group, and I told them, given
24	the frequency with which patients were seen and the
25	fact that some were lost to follow-up, it would be

#### 65

1	appropriate paperwork for each patient. So there's
2	a button that they press and it will produce
3	a patient-specific consent form, and package of
4	information, which is appropriate and personalised.
5	That enables them to upload the whole thing, once it
6	has been dealt with, to the database, so that we have
7	an electronic record of each consent.
8	We went to the Ethics Committee and they gave
9	us ethics approval for the database as a research
10	database, and that was the situation. And we were
11	busily getting consent when Covid struck and that has
12	obviously reduced the number of face-to-face
13	interactions quite dramatically and slowed down
14	obtaining consent.
15	But the other thing that changed was we are
16	still going through the process of sorting things out
17	with NHS Digital to start sending us death
18	certification data. Not least because clearly
19	mortality data forms an important element of the
20	UKHCDO response to their Rule 9 request. There's
21	a whole section on mortality.
22	And we got to the point we wanted to make an
23	annual report to NHS RA CAG, and at that point, they
24	sort of indicated to us that their opinion had
25	changed.

	. ,
1	five years and it would probably never be complete.
2	Now, they accepted that, and the reason for
3	them questioning me so closely about the process and
4	the difficulty, actually, getting the patients
5	face-to-face to get consent was that they said at the
6	time that if I had told them that it was impossible to
7	get consent, as is sometimes the case with databases,
8	then that would form the basis of an application for
9	exemption from our common law duty of confidentiality
10	and we could get exemption under Section 251 of the
11	NHS Act of I can't remember which year. But we
12	concluded that we could get written consent, and we
13	set up a process for doing that.
14	Now, entirely reasonably, the NHS RA CAG also
15	wanted an annual progress report of where we were up
16	to, and we felt at that point that the central record
17	of who had given consent and who had not would be
18	useful, and of course it would be absolutely required
19	for us to give an annual progress report.
20	So we wrote a series of age-appropriate
21	information sheets, which are included as exhibits in

information sheets, which are included as exhibits in my Rule 9 response, age-appropriate consent forms, which you'll notice have a QR code on them which is unique to the patient. We wrote software on the database for centres to access -- to get the

### 66

1	So we organised a meeting with NHS RA CAG. It
2	wasn't a meeting with the whole committee as it had
3	been before. The whole committee is a very large room
4	lined with people, it must be about 30 or 40
5	individuals, I never counted them. We met with, if
6	you like, the executive of that committee earlier this
7	year, and they indicated to us that they had revised
8	their opinion. Not just in relation to UKHCDO, but in
9	relation to other disease databases. And they felt
10	that partly because of Covid but also because of the
11	numbers involved, and because of several aspects
12	that I had discussed with them at earlier meetings,
13	including the fact that you can't take consent from
14	people who have already died, you have a problem with
15	people that are lost to follow-up and who refuse to
16	come along. They had concluded that it was
17	impractical to obtain written affirmative consent from
18	all the participants in the database, and that we
19	would be eligible for section 251 exemption, which
20	they strongly encouraged us to apply for.
21	And they suggested two separate applications in
22	relation to, firstly, the NHS purposes to which we put
23	the data, and secondly, the research purposes to which
24	we put the data.
25	So we submitted two separate applications.

(17) Pages 65 - 68

#### 5 November 2020

2	procedures, both with NHS Digital and with the
3	NHS RA CAG. Since we first dealt with them, they have

I think they had also changed some of their

- 4 realised that a lot of the difficulty that they have
- 5 with applications is that we are trying to work out
- 6 what they need and we don't necessarily know. So they
- 7 have caseworkers who offer advice as you're developing
- 8 your application to make sure that you're addressing
- 9 the right questions --
- 10 Q. So, what --

1

- 11 A. -- in the right way.
- Q. What is then the current position if -- if -- for the
  period from 2000 until recently, the database operated
- 14 on the basis of implied consent with an ability to opt
- 15 out, and that information was disseminated to patients
- 16 through the various situations of the leaflet that you
- 17 produced?
- 18 A. Yes.
- 19Q.You then, in the way you've described, started to move20towards a written informed consent in relation to the
- 21 holding and use of data, interrupted by the current
- 22 pandemic. What is the UKHCDO's intention, then, from
- 23 now onwards, in terms of whether it obtains some form
- 24 of express consent?
- 25 A. Well, the situation is that we submitted our two

### 69

1		So we will we're in the process of again
2		revising our patient information, because although we
3		revised it only last year, it has rapidly gone out of
4		date. We don't anticipate that we will ever share
5		named data, so I don't anticipate that there will be
6		any exemptions.
7	Q.	There's one discrete issue arising out of the
8		operation of the database I wanted to ask you about.
9		Soumik, could we have, please, HCDO0000002_066,
10		please.
11		So this is a meeting in November 2003 of the
12		UKHCDO's Data Management Group. If we go to the last
13		page, please. This is in the context of patients'
14		request to access information held about them.
15		The minutes received read as follows:
16		"Dr Hay continues to receive such requests.
17		Patients do not really know what data is being held on
18		the national database. Dr Hay has not prepared
19		a leaflet to let them know what type of information
20		they can expect, but he sends them a letter explaining
21		this, together with an invoice for £10 instead. This
22		often is sufficient for them to abandon their
23		request."
24		Now, that reads, Professor Hay, arguably, as
25		seeing the abandonment of a request for data as

1		applications for Section 251 exemption. The Committee
2		considered those on August 3 of this year, and
3		subsequently and this has to be confirmed by the
4		Secretary of State for Health or their representative,
5		with the weird title of a "decision-maker", and they
6		have confirmed that this has the approval of the
7		Secretary of State for Health, and so we now no longer
8		have to obtain written consent. I'll be describing
9		this to the membership of UKHCDO at the AGM tomorrow.
10	Q.	Are there any purposes for which data held by the
11		National Haemophilia Database is put for which you
12		will be seeking express written consent, or express
13		consent of any form, or is the position going to
14		entirely revert to the 2000 to 2019 position of
15		implied consent with opt-out?
16	Α.	With this exemption, we do not need the patient's
17		permission, though the patients still have the right
18		to have their data removed, and we have removed one
19		patient's data at his request only last week, despite
20		this. So the patients can still opt to have their
21		data removed, should they wish to do so. Although we
22		don't have to ask for permission, we have always felt,
23		at least since we started to think about this around
24		2000, that the patients should know what we're doing,
25		why we're doing it, and what we hold.

1		an advantage to which the
2	Α.	I can see where you're coming from, and that is not
3		the impression that I would wish to give, because
4		I think early on, I think a lot of people thought that
5		we held far more data than we did. So we would let
6		them know what we did hold. In fact, although it may
7		be a little scanty, particularly in the older in
8		the earlier period, it is sometimes more useful than
9		we think. And the £10 invoice was the fee that is set
10		out in the Data Protection Act of 1998. Since we've
11		gone to GDPR, there is no fee at all. It's a nominal
12		sum in any case.
13		I deprecate the impression that is given here
14		that we wanted to discourage anybody from making
15		a request. We get a lot of phone calls from patients.
16		We try to be as helpful and friendly as we can. It's
17		clearly their right under the Act to get data.
18		Sometimes, although the data from the early years is
19		not extensive, it nevertheless tells them the brand of
20		concentrate they were first exposed to and which year
21		they were exposed to it. And for people that are
22		trying to find out about the origin of their
23		hepatitis C, that is a key piece of information which
24		may have already been lost from their notes.
25		I think a lot of the patients thought that we

25

### 5 November 2020

1		held as much information as the hospital might, and
2		that we were an alternative source of really detailed
3		data. And, of course, that was never the case.
4	Q.	A separate issue but still relating to records is the
5		subject of my next question.
6		Soumik, could we have NHBT0091224_008, please.
7		So this relates to the approach taken by the
8		Skipton Fund to applications, and there are various
9		communications between you and the Skipton Fund in the
10		materials that we have. I just wanted to ask you in
11		particular about this one.
12		You wrote on 5th July 2011 to Mr Stevens as
13		chair of the Skipton Fund along with the chief
14		executive or the then chief executive of the
15		Haemophilia Society, Mr James.
16		And you say:
17		"We are writing to you jointly to express our
18		concern and to question the approach currently being
19		adopted by the Skipton Fund to a number of
20		applications from the dependents of the deceased.
21		"A number of cases have been rejected even
22		though the deceased relative can show that they were
23		treated with concentrate during the period of risk,
24		because the notes have been destroyed or the patient
25		died prior to the advent of HCV testing. We have

### 73

1		developed chronic hepatitis C, given a 25% spontaneous
2		remission-rate and should therefore be eligible for
3		a part 1 payment, even if the documentary support for
4		this has been destroyed and/or they died before the
5		advent of HCV testing."
6		Professor Hay, the Inquiry will be examining
7		the operation of trusts and schemes for financial
8		assistance in more detail in the early part of next
9		year. What can you tell us about this particular
10		issue, and the extent to which it was resolved or not
11		following this communication?
12	Α.	Well, we never sent data directly to the Skipton Fund.
13		I don't remember this. I think at some point the
14		Secretary of State for Health stated that these cases
15		should be settled on the balance of probabilities,
16		which seemed the only reasonable basis on which it
17		should be decided. And we wanted to do whatever we
18		could to support the applications to the Skipton Fund.
19		What happened in reality, was that patients who
20		were scratching around for evidence would turn to us
21		and ask for an extract of the data we held on their
22		relative, or the patients themselves would. And we
23		would provide that. And I think, after this, they did
24		take that into account to some extent, because
25		these were very often deceased patients whose notes

1	heard of one case refused even though liver disease
2	5
	was mentioned on the death certificate. Some
3	applications have been refused, even though evidence
4	of chronically abnormal LFTs was also provided. In
5	many cases, the notes have been destroyed because of
6	the passage of time, but either the centre or UKHCDO
7	can provide evidence of treatment with concentrate
8	during the period of risk. Had this group been
9	included from the inception of the Skipton Scheme, as
10	both UKHCDO and the Haemophilia Society argued, it is
11	far more likely that the documentation would still
12	have been available to support their application.
13	"These refusals are causing considerable
14	distress."
15	Then you go on, on the second page, to set out
16	in the first paragraph of that page your concern that
17	Skipton, rather than applying a test on balance of
18	probabilities, was applying a higher standard, of
19	beyond reasonable doubt, in reaching decisions, and
20	then you say:
21	"On the balance of probabilities, all patients
22	treated with clotting factor concentrate during the
23	period of risk will have contracted hepatitis C, given
24	the 100% infection rate documented in the literature.

On the balance of probabilities they will also have

<ul> <li>with very little documentation.</li> <li>But the data we held, scanty though it was, we</li> <li>felt should be adequate to support an application at</li> <li>least for a part 1 payment and, if they had a death</li> </ul>	è
4 felt should be adequate to support an application at	9
· · · · · · · · · · · · · · · · · · ·	
5 least for a part 1 payment and, if they had a death	
6 certificate, perhaps part 2.	
7 Q. I want to move, then, to your involvement with or	
8 the involvement of the Haemophilia Database in an H0	V
9 look-back exercise.	
10 Henry, could we have, please, WITN3289157.	
11 So we can see this is a proposal submitted by	
12 you on behalf of UKHCDO and the database entitled	
13 "Hepatitis C Look-back Exercise in Patients with	
14 Bleeding Disorders: 2009/10".	
15 If we go to the third page, please, Soumik.	
16 You set out in this proposal the objectives.	
17 (1) was:	
18 "To document patients with bleeding disorders	6
19 already tested."	
20 And to identify how many had hep C, whether	
21 they'd been offered treatment, what was the outcome,	
22 how many patients had died.	
23 Then (2) was to identify patients who had not	
24 been tested for hepatitis C, so that they could be	
25 offered advice, testing and, as necessary, treatment.	

25

1

2

3

4

5

6

7

8

9

10

11

12

13

14 15

1	Then if we turn on, please, Soumik, to page 6.
2	Thank you.
3	We can see here what you set out in the first
4	main paragraph is that:
5	"All patients with bleeding disorders treated
6	with blood products during the period of risk (before
7	1987) should have been tested in 1992 or soon after.
8	All should also have been tested for hepatitis B from
9	the late 1970s or early eighties."
10	Then you say, skipping over a sentence:
11	"Those untested are most likely to have been
12	mostly mild bleeders, reviewed annually or irregularly
13	and then subsequently lost to follow-up."
14	Then you go on to explain how it was arisen
15	that patients were not tested, in the bottom half of
16	the page, at (a), (b) and (c), you say:
17	"(a) Many Haemophilia Centres did not follow up
18	mild bleeders regularly at all once the diagnosis had
19	been made
20	"(b) Many such patients will have moved house
21	and will thus have become lost to follow-up. In
22	this way they may have fallen through the net and not
23	have been screened.
24	"(c) Some patients may have moved or registered
25	with a new centre. The new centre may be unaware of
	77

1	the end because it became overwhelming.
2	They wanted information about treatment
3	provided to patients and the outcomes, the number of
4	patients with severe liver disease, and various other
5	things for the purpose of healthcare planning and also
6	to help them to work out how much funding they needed
7	to put into the Skipton Fund. And that made this an
8	extremely involved exercise.
9	And so we asked centres for all this data. We
10	asked all the centres that the patient had been
11	registered with to provide us with data because we
12	knew that the most recent centre might not know what
13	the patient had been treated with, say, two, three,
14	four decades before in some other centre or maybe even
15	district general hospital.
16	So we approached this whole thing making no
17	assumptions about anything, other than if they had
18	been diagnosed outside the period of risk; ie, after
19	1991, they would not have been exposed to an at-risk
20	product. So we were looking just at patients who had
21	been diagnosed before 1991 and making no assumptions
22	about the treatment that they might have had.
23	Unfortunately, that led to us asking for data
24	on something like 28,000 patients, some of whom
25	about a third whom had died because of the long

1		their previous blood component or blood product
2		treatment history and therefore may not have
3		identified the patient at being at risk for
4		hepatitis C."
5		Then the top of the next page, at (d):
6		"An unknown but significant number of mild
7		bleeders may have been treated by non-specialist
8		centres. These patients are often not followed
9		systematically and are less likely also to be
10		registered with the [National Haemophilia Database]."
11		Then if we go on to page 9, you set out there
12		a proposed approach using the database to generate
13		lists, sending them to centres, asking the centres
14		then to scrutinise those lists, effectively, and to
15		work from there.
16		So that was the proposal which was, as
17		I understand it, then put into effect. Can you
18		underline for us how the look-back exercise was then
19		undertaken?
20	Α.	Well, we provided centres with spreadsheets, giving
21		them the information that we held and asked them to
22		fill out the blanks, effectively. There were a number
23		of objectives. We focused on the identification of
24		patients who were untested, but the Department of

Health added a lot to this, which was unfortunate in

### 78

timescale we were looking at. And we were asking in some cases multiple centres about the same patient to get the whole picture because, you know, we have some patients recorded on the database against seven different Haemophilia Centres because they'd moved around the country during their life.

And the centres were quite honestly completely overwhelmed by this. They did try. We told them that this data had been requested by the Department of Health, but I don't think they were staffed to do it. The patients who were lost to follow-up or who had died, obtaining their records was sometimes difficult, and sometimes the records had been destroyed. And that sort of collecting them together was quite difficult.

16 And this was primarily a problem for the 17 non-severe bleeders, because the severely affect 18 patients are seen very regularly; they're well 19 documented, and pulling their data together wasn't difficult. But they are a small minority of all the 20 21 patients who were potentially at risk. So it rapidly 22 became apparent that we were not -- just not going to 23 get all the data. The testing data was just a small 24 part of that. 25

So we had to go back to the Department of

(20) Pages 77 - 80

1	Health and revise things, and we pointed out to them
2	that we would be able to extrapolate from, say, 10% of
3	the data. And they agreed a modification to the
4	protocol whereby we would still request the testing
5	data on everybody, but the more detailed data, such as
6	the severity of their liver disease, the treatment
7	history and so on, would only be requested from
8	a randomly selected 10%. For planning purposes, we
9	could extrapolate from that.
10	Whilst it was entirely understandable that the
11	Department of Health might have wished to ask those
12	questions, this was the element that just completely
13	overwhelmed the centres and made it impossible for us
14	to pursue it. I have actually included as an exhibit
15	to my section 9 response a copy of the final report
16	which gives you a flavour of how far we got. But
17	after a period of about three years, we had to abandon
18	this because we weren't getting any new data in.
19	Now, since that time, we have obviously
20	launched a less ambitious, deliberately less ambitious
21	hepatitis C look-back exercise which will be reported
22	in our UKHCDO section 9 response to the Inquiry, which
23	includes all the data that we got from this 2010
24	look-back but also any further information that we had
25	subsequently obtained.

### 81

2to the bottom half of the page, you say:3"We strongly suspect there was under-reporting4of occasional treatment of mild bleeding disorders and5so suspect that far more of such patients were treated6than had been reported to NHD over the years."7So you:8" felt obliged to consider all patients not9included above but registered with a bleeding disorder10during the period of risk ([approximately] 18,000)11to be potentially at risk of HCV exposure unless the12centre could confirm that they had never been treated13with blood products or concentrates."14And then you report:15"Of the 9,090 patients whose previous treatment16history was reported as 'unknown', HCV status was also17reported as 'unknown' in 7,567. Of the 1,523 patients18whose treatment history was reported to us as19'unknown' but who had been HCV tested, 398 had20evidence of active HCV and 21 of past but cleared HCV.21Thus 27.5 per cent of those members of this group who22were tested and had a test result reported to us had23evidence of previous exposure to HCV."24Then you say this:25"Were this to be found in the whole of the	1	Then in terms of extrapolations, if we go down
4of occasional treatment of mild bleeding disorders and5so suspect that far more of such patients were treated6than had been reported to NHD over the years."7So you:8" felt obliged to consider all patients not9included above but registered with a bleeding disorder10during the period of risk ([approximately] 18,000)11to be potentially at risk of HCV exposure unless the12centre could confirm that they had never been treated13with blood products or concentrates."14And then you report:15"Of the 9,090 patients whose previous treatment16history was reported as 'unknown', HCV status was also17reported as 'unknown' in 7,567. Of the 1,523 patients18whose treatment history was reported to us as19'unknown' but who had been HCV tested, 398 had20evidence of active HCV and 21 of past but cleared HCV.21Thus 27.5 per cent of those members of this group who22were tested and had a test result reported to us had23evidence of previous exposure to HCV."24Then you say this:	2	to the bottom half of the page, you say:
<ul> <li>so suspect that far more of such patients were treated</li> <li>than had been reported to NHD over the years."</li> <li>So you:</li> <li>" felt obliged to consider all patients not</li> <li>included above but registered with a bleeding disorder</li> <li>during the period of risk ([approximately] 18,000)</li> <li>to be potentially at risk of HCV exposure unless the</li> <li>centre could confirm that they had never been treated</li> <li>with blood products or concentrates."</li> <li>And then you report:</li> <li>"Of the 9,090 patients whose previous treatment</li> <li>history was reported as 'unknown', HCV status was also</li> <li>reported as 'unknown' in 7,567. Of the 1,523 patients</li> <li>whose treatment history was reported to us as</li> <li>'unknown' but who had been HCV tested, 398 had</li> <li>evidence of active HCV and 21 of past but cleared HCV.</li> <li>Thus 27.5 per cent of those members of this group who</li> <li>were tested and had a test result reported to us had</li> <li>evidence of previous exposure to HCV."</li> <li>Then you say this:</li> </ul>	3	"We strongly suspect there was under-reporting
<ul> <li>than had been reported to NHD over the years."</li> <li>So you:</li> <li>" felt obliged to consider all patients not</li> <li>included above but registered with a bleeding disorder</li> <li>during the period of risk ([approximately] 18,000)</li> <li>to be potentially at risk of HCV exposure unless the</li> <li>centre could confirm that they had never been treated</li> <li>with blood products or concentrates."</li> <li>And then you report:</li> <li>"Of the 9,090 patients whose previous treatment</li> <li>history was reported as 'unknown', HCV status was also</li> <li>reported as 'unknown' in 7,567. Of the 1,523 patients</li> <li>whose treatment history was reported to us as</li> <li>'unknown' but who had been HCV tested, 398 had</li> <li>evidence of active HCV and 21 of past but cleared HCV.</li> <li>Thus 27.5 per cent of those members of this group who</li> <li>were tested and had a test result reported to us had</li> <li>evidence of previous exposure to HCV."</li> <li>Then you say this:</li> </ul>	4	of occasional treatment of mild bleeding disorders and
<ul> <li>So you:</li> <li>" felt obliged to consider all patients not</li> <li>included above but registered with a bleeding disorder</li> <li>during the period of risk ([approximately] 18,000)</li> <li>to be potentially at risk of HCV exposure unless the</li> <li>centre could confirm that they had never been treated</li> <li>with blood products or concentrates."</li> <li>And then you report:</li> <li>"Of the 9,090 patients whose previous treatment</li> <li>history was reported as 'unknown', HCV status was also</li> <li>reported as 'unknown' in 7,567. Of the 1,523 patients</li> <li>whose treatment history was reported to us as</li> <li>'unknown' but who had been HCV tested, 398 had</li> <li>evidence of active HCV and 21 of past but cleared HCV.</li> <li>Thus 27.5 per cent of those members of this group who</li> <li>were tested and had a test result reported to us had</li> <li>evidence of previous exposure to HCV."</li> <li>Then you say this:</li> </ul>	5	so suspect that far more of such patients were treated
<ul> <li>" felt obliged to consider all patients not</li> <li>included above but registered with a bleeding disorder</li> <li>during the period of risk ([approximately] 18,000)</li> <li>to be potentially at risk of HCV exposure unless the</li> <li>centre could confirm that they had never been treated</li> <li>with blood products or concentrates."</li> <li>And then you report:</li> <li>"Of the 9,090 patients whose previous treatment</li> <li>history was reported as 'unknown', HCV status was also</li> <li>reported as 'unknown' in 7,567. Of the 1,523 patients</li> <li>whose treatment history was reported to us as</li> <li>'unknown' but who had been HCV tested, 398 had</li> <li>evidence of active HCV and 21 of past but cleared HCV.</li> <li>Thus 27.5 per cent of those members of this group who</li> <li>were tested and had a test result reported to us had</li> <li>evidence of previous exposure to HCV."</li> <li>Then you say this:</li> </ul>	6	than had been reported to NHD over the years."
<ul> <li>9 included above but registered with a bleeding disorder</li> <li>10 during the period of risk ([approximately] 18,000)</li> <li>11 to be potentially at risk of HCV exposure unless the</li> <li>12 centre could confirm that they had never been treated</li> <li>13 with blood products or concentrates."</li> <li>14 And then you report:</li> <li>15 "Of the 9,090 patients whose previous treatment</li> <li>16 history was reported as 'unknown', HCV status was also</li> <li>17 reported as 'unknown' in 7,567. Of the 1,523 patients</li> <li>18 whose treatment history was reported to us as</li> <li>19 'unknown' but who had been HCV tested, 398 had</li> <li>20 evidence of active HCV and 21 of past but cleared HCV.</li> <li>21 Thus 27.5 per cent of those members of this group who</li> <li>22 were tested and had a test result reported to us had</li> <li>23 evidence of previous exposure to HCV."</li> <li>24 Then you say this:</li> </ul>	7	So you:
10during the period of risk ([approximately] 18,000)11to be potentially at risk of HCV exposure unless the12centre could confirm that they had never been treated13with blood products or concentrates."14And then you report:15"Of the 9,090 patients whose previous treatment16history was reported as 'unknown', HCV status was also17reported as 'unknown' in 7,567. Of the 1,523 patients18whose treatment history was reported to us as19'unknown' but who had been HCV tested, 398 had20evidence of active HCV and 21 of past but cleared HCV.21Thus 27.5 per cent of those members of this group who22were tested and had a test result reported to us had23evidence of previous exposure to HCV."24Then you say this:	8	" felt obliged to consider all patients not
11to be potentially at risk of HCV exposure unless the12centre could confirm that they had never been treated13with blood products or concentrates."14And then you report:15"Of the 9,090 patients whose previous treatment16history was reported as 'unknown', HCV status was also17reported as 'unknown' in 7,567. Of the 1,523 patients18whose treatment history was reported to us as19'unknown' but who had been HCV tested, 398 had20evidence of active HCV and 21 of past but cleared HCV.21Thus 27.5 per cent of those members of this group who22were tested and had a test result reported to us had23evidence of previous exposure to HCV."24Then you say this:	9	included above but registered with a bleeding disorder
12centre could confirm that they had never been treated13with blood products or concentrates."14And then you report:15"Of the 9,090 patients whose previous treatment16history was reported as 'unknown', HCV status was also17reported as 'unknown' in 7,567. Of the 1,523 patients18whose treatment history was reported to us as19'unknown' but who had been HCV tested, 398 had20evidence of active HCV and 21 of past but cleared HCV.21Thus 27.5 per cent of those members of this group who22were tested and had a test result reported to us had23evidence of previous exposure to HCV."24Then you say this:	10	during the period of risk ([approximately] 18,000)
<ul> <li>with blood products or concentrates."</li> <li>And then you report:</li> <li>"Of the 9,090 patients whose previous treatment</li> <li>history was reported as 'unknown', HCV status was also</li> <li>reported as 'unknown' in 7,567. Of the 1,523 patients</li> <li>whose treatment history was reported to us as</li> <li>'unknown' but who had been HCV tested, 398 had</li> <li>evidence of active HCV and 21 of past but cleared HCV.</li> <li>Thus 27.5 per cent of those members of this group who</li> <li>were tested and had a test result reported to us had</li> <li>evidence of previous exposure to HCV."</li> <li>Then you say this:</li> </ul>	11	to be potentially at risk of HCV exposure unless the
14And then you report:15"Of the 9,090 patients whose previous treatment16history was reported as 'unknown', HCV status was also17reported as 'unknown' in 7,567. Of the 1,523 patients18whose treatment history was reported to us as19'unknown' but who had been HCV tested, 398 had20evidence of active HCV and 21 of past but cleared HCV.21Thus 27.5 per cent of those members of this group who22were tested and had a test result reported to us had23evidence of previous exposure to HCV."24Then you say this:	12	centre could confirm that they had never been treated
<ul> <li>15 "Of the 9,090 patients whose previous treatment</li> <li>16 history was reported as 'unknown', HCV status was also</li> <li>17 reported as 'unknown' in 7,567. Of the 1,523 patients</li> <li>18 whose treatment history was reported to us as</li> <li>19 'unknown' but who had been HCV tested, 398 had</li> <li>20 evidence of active HCV and 21 of past but cleared HCV.</li> <li>21 Thus 27.5 per cent of those members of this group who</li> <li>22 were tested and had a test result reported to us had</li> <li>23 evidence of previous exposure to HCV."</li> <li>24 Then you say this:</li> </ul>	13	with blood products or concentrates."
<ul> <li>history was reported as 'unknown', HCV status was also</li> <li>reported as 'unknown' in 7,567. Of the 1,523 patients</li> <li>whose treatment history was reported to us as</li> <li>'unknown' but who had been HCV tested, 398 had</li> <li>evidence of active HCV and 21 of past but cleared HCV.</li> <li>Thus 27.5 per cent of those members of this group who</li> <li>were tested and had a test result reported to us had</li> <li>evidence of previous exposure to HCV."</li> <li>Then you say this:</li> </ul>	14	And then you report:
<ul> <li>reported as 'unknown' in 7,567. Of the 1,523 patients</li> <li>whose treatment history was reported to us as</li> <li>'unknown' but who had been HCV tested, 398 had</li> <li>evidence of active HCV and 21 of past but cleared HCV.</li> <li>Thus 27.5 per cent of those members of this group who</li> <li>were tested and had a test result reported to us had</li> <li>evidence of previous exposure to HCV."</li> <li>Then you say this:</li> </ul>	15	"Of the 9,090 patients whose previous treatment
<ul> <li>whose treatment history was reported to us as</li> <li>'unknown' but who had been HCV tested, 398 had</li> <li>evidence of active HCV and 21 of past but cleared HCV.</li> <li>Thus 27.5 per cent of those members of this group who</li> <li>were tested and had a test result reported to us had</li> <li>evidence of previous exposure to HCV."</li> <li>Then you say this:</li> </ul>	16	history was reported as 'unknown', HCV status was also
<ul> <li>'unknown' but who had been HCV tested, 398 had</li> <li>evidence of active HCV and 21 of past but cleared HCV.</li> <li>Thus 27.5 per cent of those members of this group who</li> <li>were tested and had a test result reported to us had</li> <li>evidence of previous exposure to HCV."</li> <li>Then you say this:</li> </ul>	17	reported as 'unknown' in 7,567. Of the 1,523 patients
<ul> <li>evidence of active HCV and 21 of past but cleared HCV.</li> <li>Thus 27.5 per cent of those members of this group who</li> <li>were tested and had a test result reported to us had</li> <li>evidence of previous exposure to HCV."</li> <li>Then you say this:</li> </ul>	18	whose treatment history was reported to us as
<ul> <li>Thus 27.5 per cent of those members of this group who</li> <li>were tested and had a test result reported to us had</li> <li>evidence of previous exposure to HCV."</li> <li>Then you say this:</li> </ul>	19	'unknown' but who had been HCV tested, 398 had
<ul> <li>were tested and had a test result reported to us had</li> <li>evidence of previous exposure to HCV."</li> <li>Then you say this:</li> </ul>	20	evidence of active HCV and 21 of past but cleared HCV.
<ul><li>evidence of previous exposure to HCV."</li><li>Then you say this:</li></ul>	21	Thus 27.5 per cent of those members of this group who
24 Then you say this:	22	were tested and had a test result reported to us had
, ,	23	evidence of previous exposure to HCV."
25 "Were this to be found in the whole of the	24	Then you say this:
	25	"Were this to be found in the whole of the

1		I should add, incidentally, that prior to these
2		look-back exercises, UKHCDO issued and indeed
3		published several liver disease guidelines, including
4		recommendations on testing. So, you know, these
5		patients should all have been tested anyway. And
6		I anticipate that you're going to ask me, "Well, how
7		many untested patients did you identify?" And the
8		answer is: not very many. I think people continue to
9		come out of the woodwork in small numbers.
10	Q.	We'll await with interest the UKHCDO response to the
11		Inquiry's request, but for the sake of completeness,
12		I'll just ask you to look briefly at the report of the
13		2010/11 exercise.
14		Soumik, it's WITN3289162.
15		We can see it's a report that's said to be up
16		to 31 March 2014. It's headed "Hepatitis C look-back
17		report".
18		"This report is comprised partly of data
19		imputed from the treatment records of NHD collected
20		over many years and partly from data collected
21		specifically in an HCV look-back exercise conducted
22		from 2010. Centres found the look-back exercise
23		burdensome and in some cases difficult, and the data
24		is consequently incomplete. Many patients were
25		probably lost to follow-up."
		F

1		18,000 patients for whom we have no treatment reports.
2		we would expect about 5,000 additional patients whose
3		exposure to HCV has not been documented or who have
4		not been tested. It is likely that there is reporting
5		bias, however, and that those treated are less likely
6		to be lost to follow-up and that the true number of
7		those exposed is significantly"
8		Top of the next page:
9		" lower than this statement. However,
10		unless this group are tested and reported we have no
11		way of making an accurate estimate."
12		Then you strongly recommend that:
13		" all patients diagnosed with a bleeding
14		disorder before September 1992 should be tested for
15		HCV because Centres and the patients themselves will
16		frequently not know what their treatment history is."
17		So professor, subject to whatever is going to
18		emerge in the further material you provide to the
19		Inquiry, this, as I understand it, is the report that
20		was produced following the look-back exercise
21		commissioned by the Department of Health?
22	Α.	Yes.
23	Q.	And
24	A.	This report is actually taken from one of our annual
25		reports. As a supplement to that.

1	Q.	Do you know what steps have been taken, if any, by
2		centres in response to the recommendation that you set
3		out there in bold and italicised and underlined?
4	Α.	Well, I think I know that centres have attempted to
5		trace some of these patients. The database holds NHS
6		numbers. It doesn't hold NHS numbers for all the
7		patients, because we didn't collect NHS numbers for
8		the whole history of the database. So there are some
9		patients for whom we don't hold NHS numbers. Usually
10		these are very early registrants, so they may be dead.
11		But they are very difficult to trace, because some of
12		the early registrations we may not even have the whole
13		name. We mostly do, I hasten to add. This is a tiny
14		minority. Because these days we wouldn't accept
15		a registration of that quality. We would go back to
16		the centre and chase them for the missing details.
17		Now the point about this is if you know the NHS
18		number, and the patient is registered with a GP, then
19		you should be able to trace the patient, or at least
20		the GP. And I know that in my centre, and we have
21		asked other centres to do the same, we need to trace
22		all these people.
23		You will hear, with our response to the Rule 9
24		request to UKHCDO, that that's not always been
25		possible, and in some cases when centres have asked

### 85

1	a report from Dr Biggs. It's essentially a precursor
2	to the report from Dr Rizza that you referred to
3	yesterday, and I may want to ask you some questions
4	about it on the issue of life expectancy, so I would
5	invite you to check your emails and perhaps read that
6	over lunch. It's a fairly short document.
7	And then, secondly, addressed to recognised
8	legal representatives who are not present in the room
9	as they normally are but are listening remotely, this
10	hour is the opportunity for the recognised legal
11	representatives, please, to communicate by email to me
12	and to Ms Scott any further questions in addition to
13	those they've already submitted that they would wish
14	us to consider asking Professor Hay this afternoon.
15	SIR BRIAN LANGSTAFF: Well, what I shall do, given that
16	we're asking you, professor, to look at a report by
17	Dr Biggs, we'll extend the lunch break for
18	ten minutes.
19	So it's ten past two, please, and I look
20	forward to seeing you all then.
21	A. Thank you.
22	(1.02 pm)
23	(Luncheon Adjournment)
24	(2.10 pm)
25	SIR BRIAN LANGSTAFF: Yes.

	e neteroniser zer
1	the patient to come up to the centre for review they
2	have refused, but we can at least write to the GP and
3	ask if they've been tested, and if not, ask the GP to
4	arrange for them to be tested and explain the
5	situation in a letter.
6	UKHCDO has no direct patient responsibility but
7	in these exercises what we were trying to do is to
8	facilitate and make it easier for Haemophilia Centres,
9	whom we think do hold that responsibility, to follow
10	these patients up.
11	I know that in my own centre there have been
12	some patients who have refused to be tested, refused
13	to come up. Fortunately, very small numbers of those.
14	Yes.
15	Sir, I note the time, and I'm going to be
16	moving on to a separate topic, so perhaps we could
17	take lunch now.
18	SIR BRIAN LANGSTAFF: Yes. Let's take a break until
19	2 o'clock, shall we.
20	<b>MS RICHARDS</b> : Before we cease the transmission and the
21	link with Professor Hay, just two matters, if I may,
22	sir.
23	The first directed to Professor Hay.
24	Professor Hay, you've been sent a document by
25	the Inquiry in the course of the morning which is

### 86

1	MS	RICHARDS: Professor Hay, a handful of questions next
2		on the issue of consent, patient consent. And my
3		questions are going to be essentially seeking to
4		understand the factual basis for your understanding of
5		current and previous practices.
6		In relation to blood samples, you've said in
7		your statement, paragraph 80.3:
8		"One did not ask for consent to take blood
9		samples. I think it is assumed that the patient has
10		consented because they go along and allow the
11		phlebotomist to take the sample. It is not normal to
12		take verbal or written consent for blood sampling
13		other than for the purpose of research."
14		I understand your point, professor, about the
15		patient consenting by allowing the blood to be taken,
16		but do you take that to mean, in terms of your own
17		practice or your understanding of current practice,
18		that the patient is consenting to any and every use of
19		that sample, or is there some limit to the uses to
20		which the sample can be put?
21	Α.	Well, I think if the sample was to be stored, that
22		would be a separate matter. Although the Human Tissue
23		Act doesn't apply to plasma, as far as I'm aware. But
24		the patient wouldn't necessarily know that, probably
25		wouldn't.

(22) Pages 85 - 88

25

test, and so on.

1		I mean, it isn't normal practice for ask for
2		consent but you would and in a routine review
3		appointment, you tend to take the same samples each
4		time, and at some point you might well, the patient
5		would often know what the samples were for, because
6		the results would often be discussed. For example the
7		HIV viral load, the CD4 count, the patients often want
8		to know what those results are because they give them
9		an index of their current status, so you discuss them.
10		If you're taking a sample for something new,
11		depending on what it was, you might describe it in
12		general terms. I know, for example, if you refer
13		a patient with abnormal liver function tests to be
14		investigated by a hepatologist, they won't describe
15		every single test that they're doing but they'll say,
16		"Well, we're going to test for some hepatitis viruses
17		and some antibody tests and liver function tests".
18		They probably wouldn't say more than that unless the
19		patient asked, and if the patient asks, then of course
20		you'd tell them.
21		But what I was trying to get across is that it
22		is not normal practice to sit down and list every
23		single test that's going to be done, every time, and
24		say, "Is that all right?" Do you see what I mean?
25	Q.	Yes. In a sense you've anticipated, I think, two of

### 89

1		Similarly, if I saw a patient with a mild
2		bleeding disorder that had been long since lost to
3		follow-up, who was new to me and might have been
4		treated with who knows what, in another hospital,
5		I would explain to them that we had to test them for
6		hepatitis C. I would give them an evaluation of the
7		likelihood of that test being positive, and say, you
8		know, "It may well be negative but we really need to
9		know one way or the other."
10	Q.	And in relation to stored samples, could we look,
11		please, Soumik, at WITN3289054.
12		If we go to the second page. Now, this is
13		a specific form at Manchester Royal Infirmary in
14		relation to genetic testing, but if we go on to the
15		next page we can see it's it seems to be an
16		information sheet for patients. It asks the question
17		"What is the purpose of obtaining a blood sample?"
18		Then if we go over the page, it provides
19		information about where the sample will be tested, how
20		long the sample will be stored and then, if we go to
21		the next page, "What else might be done with my blood
22		sample?"
23		Now I appreciate this is a leaflet specifically
24		concerned with the taking and storage of samples for
25		genetic testing. But would you consider that those

1		my next questions.
2		Where you have a patient who is a new patient
3		or you're doing something which is not the standard
4		array of tests you may have done many times before,
5		and then explained the results, and you may assume
6		that the patient has some, therefore, understanding of
7		the purpose, but would you accept that, in principle,
8		different considerations may arise, depending on the
9		particular circumstances, with a patient who has not
10		previously been tested or a patient where you're doing
11		something new?
12	Α.	Yes, absolutely. Because at the end of the
13		consultation with a new patient, you would summarise
14		where you think you're up to. They will probably want
15		to know the range of possible diagnoses, and you will
16		describe in general terms what the tests will be. You
17		know, someone comes to me with easy bruising, I will
18		give them an my personal evaluation of the bleeding
19		history that I've just taken from them, and I will
20		tell them, you know, "We're going to check a few
21		clotting tests. We will probably have to get you back
22		in on another occasion to check your platelet function
23		tests", and you'll tell them they have to avoid
24		aspirin and drugs like that for two weeks before the

1		kinds of questions, where will it be stored, how long
2		will it be stored, what else might be done with it,
3		are the kind of questions which patients should be
4		given information about if samples are going to be
5		stored?
6	Α.	Well, genetic testing was considered particularly
7		sensitive, and this is the form that we actually give
8		to them before we go through a formal consent
9		process and this leaflet was submitted to you as
10		one of the exhibits to my response as was the
11		consent form. And as the consent form says: it is our
12		plan to store your sample indefinitely, which is
13		unusual, actually, because that means even after the
14		patient has died, we may continue to store that. And
15		the patients are asked to consent to that in writing.
16		Now that's not for research purposes. That may
17		be to facilitate testing of relatives at some stage in
18		the future. And this leaflet and the accompanying
19		consent form were actually designed by the Genetics
20		Working Party of UKHCDO. And again, it's
21		considered I don't think this is really a very good
22		example because the status of genetic testing is in
23		general a little bit different.
24		I think if we were to store samples for
25		potential research in the future, some form like this

25

1		would be appropriate, but UKHCDO certainly don't do
2		that, and I don't have any research samples stored
2		away either. Research repositories have to be
4		
		regulated and a form like this would be appropriate
5	~	for that sort of purpose.
6	Q.	And what about it may be this is hypothetical if
7		you don't do it what about storing samples to keep,
8		essentially on the basis that there might come unknown
9		viruses in the future that one might want to or
10		other unknown issues in the future when one might want
11		to take the sample out and test at some future stage?
12		l mean, is that first of all is that something that
13		happens at Manchester, in your
14	Α.	No well, all our virology departments, as far as
15		I'm aware, store samples for three years, and then
16		dispose of them, and that's in case they need to
17		investigate further. One of the other principles you
18		will have noticed, going through the consent process
19		in relation to genetic testing, is the principle that
20		if we want to re-test the sample for a different
20		•
		condition, we would have to go back and ask the
22		patient for consent again. Because the consent is
23		extremely specific. And in the first the first
24		part of the consent form, you explain to the patient

25 that you are only going to test for the main

### 93

1	got a sample stored, you may have taken general
2	consent that you have a sample stored for research
3	purposes, and in some cases that consent includes
4	consent to keep the result anonymous. That would be
5	one way of handling, for example, testing for a new
6	antibody test, where you may not know what the
7	implications of a positive test are, or indeed how
8	good the antibody test is. And then it's helpful to
9	test a group of patients anonymously on the
10	understanding, explained in advance, that the patients
11	will not be told the result.
12	SIR BRIAN LANGSTAFF: By "anonymous" you don't mean
13	without identifying the individual; you mean without
14	telling the individual?
15	A. Yes, that's right, and keeping the report anonymous as
16	well.
17	SIR BRIAN LANGSTAFF: Yes, well, I understand that last.
18	It was just the use of the word "anonymous", I just
19	wanted to clarify. Thank you very much.
20	A. Sure. All the reports would be anonymised but you
21	clearly need to identify the sample.
22	MS RICHARDS: Moving on, then, to the question of
23	hepatitis C testing, you say in your statement this:
24	" it has never been customary, in any branch
25	of the health service, to provide pre-test counselling

1	condition, which will be haemophilia A, B, or
2	von Willebrand's disease, or whatever, and that you
3	won't be testing for anything else.
4	So that they understand that you won't be
5	digging it out and using it as a research thing
6	without their permission. And we say quite explicitly
7	to the patients, "If we want to do that, we are
8	obliged to come back and ask you". Because, for
9	example, once we have a stored sample of DNA, we could
10	in theory test that sample for cancer genes, and
11	just using that as an example.
12	And the implications of testing for something
13	that might give you cancer are very different from the
14	implications of testing you for a hereditary bleeding
15	disorder. So the patient may be very happy, and has
16	often volunteered, to be tested for the familial gene,
17	but might prefer not to know if they have a gene that
18	predisposes them to cancer.
19	So it's an important principle that applies to
20	genetic testing.
21	Now, by the same token, I think if you stored
22	a sample and you wanted to do research on it, you'd
23	have to go back to the patient. I mean, I think
24	that's the current view. I don't think it has always

been that, but I think that, you know, even if you've

1		or obtain specific consent for hepatitis C testing,
2		hepatitis A testing or hepatitis B testing."
3		Then you refer to information received from
4		your hepatology colleagues that in 2020 if they saw
5		a patient with abnormal liver function tests, they'd
6		arrange a battery of blood tests which would include
7		viruses such as HCV and would tell the patient words
8		to the effect of "I'm doing a few tests, including
9		tests for viruses."
10		Now I just wanted to explore with you what the
11		factual basis is for that, your belief that that is
12		the customary position.
13		Your own practice, as I understand it from your
14		evidence so far and your written evidence, is that
15		you I think you say almost invariably or invariably
16		did tell patients that you proposed to test them for
17		hepatitis C, thus affording them, presumably, an
18		opportunity to decline.
19	Α.	Well, I can't remember anyone declining, although they
20		have recently, when we've chased them up, the odd
21		patient. Well, I think this circles around what you
22		mean by "counselling", to be honest. Because my
23		understanding of the questions being put to me in my
24		Rule 9 request was that a comparison was being drawn
25		between the situation of formal counselling for

1	HIV testing and hepatitis C, and my answer was in
2	relation to that. Because whilst I would certainly
3	tell people I was testing them for hepatitis C, the
4	implications for that test are not the same as for
5	HIV.
6	And indeed, the process of counselling people
7	prior to HIV testing really only fully emerged a year
8	or two after we started to have a test, because to be
9	honest, back in 1984/85, when testing first became
10	available, the implications of the test were not fully
11	known.
12	So, you know, the conversation could be quite
13	short and would include assertions such as just having
14	HIV doesn't mean you've got AIDS. Because we didn't
15	know the natural history and so on. We didn't realise
16	that it would have major implications for getting
17	a mortgage, for getting life insurance, and all of
18	those have to take their place in the process of
19	counselling to have an HIV test once those things are
20	known.
21	Now, with hepatitis C we knew that the natural
22	history was a prolonged one, that a significant
23	proportion of patients would have a very good
24	prognosis, whilst a significant minority would
25	obviously get serious liver disease.
	97
	97
1	news. And they may have very little awareness of
2	hepatitis C because I think there is much less
3	awareness in the general public of hepatitis C than

- 4 there is, for example, of HIV. So you have to
- 5 introduce to them the possibility, having taken
- 6 whatever treatment history you can elicit, that there7 is a possibility that they may have contracted
- 8 hepatitis C. And, you know, as I say, you would make
- 9 some sort of calculation based on what you'd been
- 10 told. You might not be able to assess the risk, but
- 11 you have to put that to them, and then you would say,
- 12 "I think we need to test you." And they will almost13 invariably say yes.
- 14 Q. And so that would be your practice in 2020. Was your
   15 practice in 1992, 1993, 1994, any different from that?
- 16 A. No, not really.
- 17 **Q.** And so the basis for -- if we leave aside pre-test
- 18 counselling in the way in which you've described it,
- 19 the basis for your -- the statement in your witness
- 20 statement that it's never been customary to obtain
- 21 specific consent for hepatitis C testing, are you
- 22 there talking about written consent, or are you there
- 23 talking about the practice that hepatologists,
- 24 colleagues tell you that they just say, "Well, we're
- 25 going to test for a range of viruses," without saying

100

1		So it would be a different conversation. I'm
2		not saying that you would I think in our practice
3		we probably talked more to our patients about
4		hepatitis C prior to testing even than the liver
5		doctors do, because the liver doctors see lots of
6		people with abnormal liver function tests. The
7		commonest cause of abnormal liver function tests in
8		the general population is obesity.
9		Now, in my group of patients, that's sadly not
10		the case and, you know, if I see a bleeder, my
11		concerns are slightly different. If they've got
12		abnormal liver function tests, I would assume it was
13		hepatitis C until proven otherwise.
14	Q.	So if you were, in 2020, seeing a patient, perhaps one
15		of the infrequently treated patients who'd been lost
16		to follow-up who has now come back to the centre, and
17		they either hadn't been tested for hepatitis C or you
18		don't know whether they'd been tested for hepatitis C
19		or not, and you thought it would be prudent for them
20		to be tested for hepatitis C, what information would
21		you typically now give that patient in advance of
22		undertaking the test?
23	Α.	Well, some of these patients are already concerned
24		because you've dragged them out of the woodwork, and
25		they're worried that you might be giving them bad

### 98

1 any more?

2	Α.	Well, we certainly did get written consent. We do get
3		written consent for genetic testing, but not for any
4		other tests unless they're invasive, of course.
5	Q.	In relation to HIV testing, and I just wanted to
6		understand your understanding of the current position,
7		you've said in again, I think it's the same
8		paragraph of your witness statement, you say that
9		you're talking about HCV you say:
10		"Unlike HIV, which almost uniquely requires
11		pre-test counselling during the '80s, '90s and until
12		fairly recently," and then the impression your
13		statement gives is that the current practice in
14		relation to HIV testing would not necessarily involve
15		the patient being told they were being tested.
16	Α.	Well, that's my understanding. I mean, I personally
17		haven't tested any new patients for some time. If
18		someone came out of the blue and their last treatment
19		had been during the period of this, I would still go
20		through all of that business. But at the beginning,
21		I'm sure you appreciate, different clinicians had very
22		different approaches to imparting someone's HIV status
23		to them. I felt that Professor Preston's approach was
24		a very good one, and some of my colleagues not so
25		good. And then it became universal practice to

	carefully counsel people before they were tested.
	And I only mention that because I think that
	the implications have changed with time because the
	treatment is very much better, and very few of our
	patients have died from HIV since 1995. Life
	insurance is also less of a problem.
	I mean, at one time, if you had asked for
	a house loan above a certain level, the insurance
	company would insist you had an HIV test. I've been
	HIV tested twice myself on that basis, and my GP told
	me that half the residents in Lymm had had an HIV test
	for that reason. And he counselled me, despite the
	fact that he knew I was a consultant haematologist.
	So I've seen both sides of this, shall we say.
	But all pregnant women are tested, and you know, so
	practice does change.
Q.	I wanted to then ask you about some of your evidence
	yesterday in relation to life expectancy. So this,
	professor, was in the context of having asked you what
	consideration was given at Sheffield in 1983, 1984, to
	the possibility of reverting to cryoprecipitate more
	extensively, at least for a period of time. And you
	referred, when giving your evidence about increased
	risk of death and from haemorrhage and decreased life
	expectancy, to a paper by Dr Rizza, and I wanted to
	Q.

### 101

1	You'll see it says in that first paragraph, in
2	the last two sentences:
3	"The average ages of the patients who died were
4	46.7 years in the haemophilia A group, and 48.3 years
5	in the haemophilia B group. Comparable figures for 69
6	to 74 were 42.3 years and 33.6 years respectively."
7	Then if we go to the next paragraph, please.
8	It says:
9	"A more useful statistic was the median
10	expectation of life."
11	I think it's easier if we just go back to how
12	it was before. Thank you.
13	"This was calculated from life tables.
14	Surprisingly, the calculations yielded a median life
15	expectancy of 69.1 years for severely affected
16	haemophiliacs, as compared to 72.8 for normal males.
17	Those figures must clearly be viewed with caution
18	since the numbers in the calculations were relatively
19	small and also because of the possibility that deaths
20	in haemophiliacs may not all be reported to
21	Haemophilia Centre Directors."
22	Then there's reference to the number of deaths
23	due to cerebral haemorrhage in the following
24	paragraph, at 26 of 89 deaths (29%).
25	Now, first of all, is that the report or study

1		check first of all that I've got the correct one.
2		WITN3289047.
3	Α.	"Haemophilia treatment in the UK from 1969 to 1974."
4		British Journal of Haematology, 1977.
5	Q.	That's the document we asked you to read over lunch
6		which I'll come on to.
7		But first of all, yesterday, your evidence was
8		that this was a potentially relevant piece of
9		material, and this is one of the exhibits to your
10		statement.
11	Α.	Yes.
12	Q.	We can see it's by Dr Rizza and Ms Spooner.
13		"Treatment of haemophilia and related disorders in
14		Britain and Northern Ireland during 1976-80: report on
15		behalf of the directors of Haemophilia Centres in the
16		United Kingdom."
17	Α.	Yes.
18	Q.	If we go to the second page, right-hand column,
19		please, Soumik, under the heading "Age at death and
20		causes of death". I wanted to check whether this was
21		the material that you were referring to,
22		Professor Hay, as relevant to the assessment being
23		made in Sheffield in 1983 and 1984. So we'll see
24		under the heading "Age at death and causes of death".
25		Can we scroll down? Thank you. That's perfect.
		100

1		that you were referring to in your evidence yesterday?
2	Α.	Yes.
3	Q.	And what is it that you drew from this report when
4		this issue well, sorry. I'm going to start that
5		again.
6		Was this something that was expressly
7		considered in 1983 and 1984 when the question of how
8		to respond to the AIDS crisis may have been being
9		discussed in Sheffield?
10	Α.	Well, it was published in 1983, in March. And the
11		perception certainly was that the introduction of
12		concentrate had significantly improved life
13		expectancy.
14		Now, in the paragraphs you've just quoted me,
15		they compare the average age of death, which is not
16		quite the same thing as life expectancy, but they
17		compare it with the previous reports from Rosemary
18		Biggs, which you suggested I should read over lunch.
19		And now, Rosemary Biggs doesn't use
20		actuarial methods or life table, so the average age of
21		death is the only metric for comparison, and I'm sure
22		you're going to point out to me that it has gone up
23		relatively modestly.
24	Q.	Yes.
25	Α.	I think, though, the headline figure that people took

1	away was the median life expectancy of 69.1, which has
2	been much quoted since.
3	Of course, Rosemary Biggs was not the only
4	source of data. There were other studies showing the
5	average life expectancy at that time was about 40,
6	but you know, back in the '60s and very early '70s,
7	but it's quite difficult comparing all these things
8	because people use different methods.
9	I've recently written a review which is about
10	to be published in the Journal of Thrombosis and
11	Haemostasis on mortality and haemophilia, and this is
12	a difficulty that besets the whole area. It's
13	actually quite difficult to compare.
14	Now, one other thing I'd say about the
15	comparison between these two is they report adjacent
16	periods. And the second report from Charlie Rizza is
17	reporting a period during which concentrate is being
18	introduced and patients established on home therapy.
19	So you would perhaps not expect a really dramatic
20	difference because, in terms of the therapeutic
21	approach, the two periods overlap somewhat.
22	What it's showing is a trend towards improved
23	life expectancy that would not flower fully until the
24	period after 1980, when most people were established
25	on home therapy.
20	on none thougy.
	105
1	15 years, and so from the 50s they would have had
2	blood transfusion and plasma, and cryoprecipitate was
3	introduced in the mid to late 1960s.
4	SIR BRIAN LANGSTAFF: That's why I think Rosemary Biggs is
5	referring here, in the first sentence, is it, to 1967
6	because that's when cryoprecipitate would have been
7	introduced?
8	A. Yes, widely. I think it was described in '66.
9	SIR BRIAN LANGSTAFF: Yes.
10	So the first sentence she says is
11	observational. It expresses an opinion. Is that an
12	opinion you would agree with? That:
13	"Increasing amounts of cryoprecipitate and of
14	Factor VIII and Factor IX concentrate have greatly
15	improved the prospect for treatment of patients
16	suffering from A and B."
10	sunding non A and D.

- 17 A. Yes.
- 18 SIR BRIAN LANGSTAFF: Thank you.
- 19 A. Unquestionably.
- SIR BRIAN LANGSTAFF: So unquestionably the introduction
   of cryoprecipitate, then, and later we know that
- 22 concentrates, the NHS concentrate, from probably about
- 23 1970 onwards, we're informed, formed an increasing
- 24 part of treatment, and then commercial concentrate,
- 25 when there wasn't enough NHS to go round, from about

107

4	~	If we just lead at the Direct second because we due and
1	Q.	If we just look at the Biggs report because you've got
2		the benefit of it and I have, but others watching
3		don't, so I'll just put it on screen.
4		It's PRSE0004645.
5		Soumik, it'll be in the knowledge of risk
6		material, so you may have it stored in a separate
7		location.
8	Α.	It was part of my submission, as an exhibit, actually.
9	Q.	We now have on screen and I know you have a copy,
10		professor, the Biggs report. So we'll see that covers
11		period '69 to '74. And if we go to the fourth page of
12		that, please, Soumik.
13	SIR	BRIAN LANGSTAFF: Can we just stop at the first page.
14	MS	RICHARDS: Yes, back to the first page, please.
15	SIR	<b>BRIAN LANGSTAFF:</b> And underneath the summary, just the
16		very first sentence, because before around
17		about 1960, as one understands it, the life expectancy
18		of a haemophiliac suffering from severe haemophilia
19		was probably in the region of 20 to 25 years. It
20		hadn't gone up very much since the 1930s. It had gone
21		up a bit but not much. That's probably about right,
22		is it?
23	Α.	Yes, it's about right. It's life expectancy was
24		about 29 years. And it improved a lot from the

25 no treatment era, when it would have been about ten or

1	1973 onwards. That, I think, is broadly the position,
2	isn't it?
3	A. lagree.
4	SIR BRIAN LANGSTAFF: You weren't practising at the time
5	so this all done by report so I'm putting a very broad
6	picture to you. I'm not going to hold you to a point
7	answer, but I think that is broadly the
8	understanding
9	A. No, no, I was a medical student at the time, but
10	obviously I've gone into the history.
11	SIR BRIAN LANGSTAFF: So you were going to go to the
12	fourth page
13	MS RICHARDS: Yes.
14	SIR BRIAN LANGSTAFF: Ms Richards, I'm sorry.
15	MS RICHARDS: And to draw attention in particular for the
16	benefit of those listening Professor Hay has a hard
17	copy to the top of the page:
18	"In the early statistics the average age of
19	death of severely affected haemophilic patients was
20	less than 20 years. Thus the age at death seems to
21	have more than doubled as a result of Factor VIII
22	therapy."
23	And of course, I think we know broadly that in
24	the period she's here looking at, up until 1974, the
25	majority of Factor VIII therapy would have been
	108 (27) Pages 105 - 108

1		cryoprecipitate, although, as you've just observed, of
2		course, concentrates were starting to be used and were
3		then used much more increasingly in the years that
4		followed.
5	Α.	Yes.
6	SIR	BRIAN LANGSTAFF: Yes, I mean, the precise amounts of
7		cryoprecipitate compared to the precise proportion
8		is will be a matter for us to explore elsewhere,
9		but I think broadly what you've said must be right.
10	Α.	Yes, absolutely. And you should get those figures
11		that we have in the UKHCDO statistical response to
12		their Rule 9.
13	SIR	BRIAN LANGSTAFF: Thank you.
14	MS	RICHARDS: Then we can see reference in the table to
15		the age at death of patients having haemophilia A or
16		B, and for present purposes I'll just look at
17		haemophilia A. And we can see there the average age
18		at death: 42.3. And whilst we're looking at it, just
19		to observe, we also see the number of deaths from
20		intracranial bleeding, which the figures in both
21		reports are fairly small, but it's 16 out of 62, which
22		I think would have been approximately 25, 26 per cent
23		of deaths from that cause in that period.
24		This is looking at it very broadly,
25		Professor Hay, but is this right: before the

### 

1		intermediate period, because it's a period during
2		which some centres are quite well advanced in
3		converting to concentrate, and others much less so.
4		But I know from the history of the Manchester Centre
5		that there were still patients being treated with cryo
6		in the early eighties, and whilst I appreciate that
7		they were unusually conservative in their approach to
8		treatment in the Manchester Centre, it was a more
9		gradual process than I had realised.
10		Yes.
11	Q.	And so would this be fair: that these two reports
12		don't provide any significant support for a conclusion
13		that reversion to cryoprecipitate in 1983,
14		particularly for a relatively short period of time,
15		maybe a couple of years, would have led to
16		a significant increase in deaths or a significant
17		decrease in life expectancy?
18	Α.	Well
19	SIR	BRIAN LANGSTAFF: You're asking in the absence of
20		HIV infection?
21	MS	RICHARDS: Yes. Yes, we know, of course, as well
22		established in later reports, including those
23		co-authored by Professor Hay, that as a matter of
24		fact, the greatest impact upon mortality in the years
25		that followed was viral infection of HIV.
		111

1	availability of any form of Factor VIII therapy, and	
2	so before the availability of cryoprecipitate, the	
3	average age of death was around 25 years or so. But	
4	according to Dr Biggs in this, it almost doubled	
5	during the period '69 to '74, when most of the	
6	Factor VIII therapy producing that result would have	
7	been cryoprecipitate?	
8	A. Well, I think my interpretation of what she is saying	
9	is that it doubled from the period before	
10	cryoprecipitate to the period that she is looking at.	
11	SIR BRIAN LANGSTAFF: Yes.	
12	A. Because the use of cryoprecipitate was already	
13	well established in 1969, I think.	
14	MS RICHARDS: Then when we look at the period covered by	
15	Dr Rizza's report, we can see that the average age of	
16	death increases again, but it's a much smaller margin,	
17	around two and a half years.	
18	A. Yes	
19	SIR BRIAN LANGSTAFF: It's about 10%, isn't it?	
20	A I'd agree with that, and to be honest, I think that	
21	the actuarial calculation paints a much rosier picture	
22	but you can't use that to compare with the earlier	
23	period, because there isn't a similar calculation in	
24	Rosemary Biggs' report. And I think that the period	
25	that Charlie Rizza is reporting is a sort of	
	110	
1	SIR BRIAN LANGSTAFF: Yes, but people would not have know	n
2	that	
3	MS RICHARDS: No.	
4	SIR BRIAN LANGSTAFF: at the time for the purposes of	
5	this comparison?	

6	Α.	Well, I think that I would agree that the increment in
7		life expectancy between these two reports is
8		relatively modest. It's not insignificant. And you
9		also have to recognise that the second report is an
10		intermediate period when there's still a lot of
11		patients being treated with cryoprecipitate, and not
12		everyone has been established on home therapy.
13		You will see that if you look at the report of
14		the Prophylaxis and the Home Therapy Working Parties
15		from the seventies and early eighties. I was unaware
16		until recently of the existence of this working party
17		but they did actually audit their roll-out of home
18		therapy, and it was slower than I had realised.
19		I think my view was rather coloured by my
20		personal experience in Sheffield, and I had assumed
21		that all other centres were as quick to do it as they
22		were. But that is actually not the case.
23	MS	RICHARDS: Sir, I'm going to move on to a separate
24		topic. Before I do so, was there anything further

- topic. Before I do so, was there anything further
- that you wished to ask --

(28) Pages 109 - 112

1	SIR	BRIAN LANGSTAFF: Only this, really: I just draw your
2		attention to the risk, I think, or the cause of death,
3		proportionately, which Dr Rizza in his paper
4		identified as being intracranial bleeding. I think it
5		was about 29%, he said, of the cases that he was
6		looking at, died of that, if they didn't die of other
7		causes.
8		If one takes the 16 that we're looking at, it's
9		table III, the first item, "Intracranial bleeding",
10		then the total number of cases, 62, it's about just
11		over 25 per cent, it'd be 25% if it was 64. So it is
12		just over 25%. But there's not a great deal of
13		difference in those two figures, for what it's worth;
14		is there?
15	Α.	No, true, but I agree, and intracranial bleeding
16		was the commonest cause of death during that period.
17		But I would come back to the fact that, you
18		know, you wouldn't expect a dramatic difference
19		looking at two periods when, in one case, everyone is
20		treated with cryo and, in the second, you have
21		a transitional period, they're not all on home therapy
22		during this second period, or not for the whole of
23		that period.
24		I can tell you that the number of patients
25		dying from intracranial haemorrhage now is less than

#### 113

1	SIR	BRIAN LANGSTAFF: Thank you.
2	MS	RICHARDS: Professor Hay, I've got a number of
3		questions now that I've been asked to ask by core
4		participants, and so we're going to dot about from
5		topic to topic, rather than follow a chronological or
6		thematic order.
7		The first arises out of a passage in your
8		statement about research where you describe the
9		difference between an interventional study and
10		observational research, and your statement explains
11		the different ethical requirements that might attach
12		to each.
13		Is the distinction between an interventional
14		study and observational research always clear-cut?
15	Α.	No, I don't think it is, actually. It may be a matter
16		of opinion.
17		We recently conducted a study
18		internationally not UKHCDO, by the way, but
19		investigator-led study which involved applying
20		a number of quality of life questionnaires to the
21		patient at intervals. They had to give consent to
22		this anyway because you know, written informed
23		consent, but it wasn't regarded as an interventional
24		study in six out of the seven countries. The seventh
25		country was France, and in France they said, well, if

1		10%. So treatment with concentrate, as currently
2		practiced, and with prophylaxis which may of course
3		be very, very important, because you will expect to
4		prevent a lot of the bleeds that might have occurred
5		with treatment on demand, but we have reduced that
6		complication quite dramatically.
7	SIR	BRIAN LANGSTAFF: I can full understand the
8		significance of prophylaxis, but just comparing these
9		two sets of data for what it's worth, as you've
10		indicated, they're not exactly comparable this
11		well, what you're looking at on the screen at the
12		moment, the Biggs paper, is at a time when there was
13		some but very little home therapy, I think. Am
14		I right?
15	Α.	Yes, I think that's correct.
16	SIR	<b>BRIAN LANGSTAFF:</b> So the two changes were it wasn't
17		just a change from a little Factor VIII concentrate to
18		a lot of Factor VIII concentrate, proportionately, but
19		also a change from a little home therapy to a lot of
20		home therapy proportionately. You still have a fairly
21		comparable death rate in these two studies over the
22		two periods so far as intracranial bleeding is
23		concerned. It doesn't allow for a very dramatic
24		distinction between the two, does it?
25	Α.	No.

### 114

1	we'd asked fewer questions, it would have been an
2	observational study, but they regarded it as an
3	interventional study because it took the patients more
4	than an hour to fill out the forms. And I think that
5	illustrates a classical grey area, and I can see their
6	point, but that came down to a matter of judgment.
7	There are other studies where you may have
8	you may record the results of interventions that are
9	clinically indicated, and that should make it an
10	observational study because the intervention would
11	have occurred anyway for example, an operation or
12	a blood sample or whatever and the intervention has
13	not been done for the purpose of research. Because
14	it's not been done for the purpose of research, that
15	would be an observational study. But if you were to
16	test a new agent such as a new Factor VIII
17	concentrate, to establish safety and efficacy, that's
18	unquestionably an interventional study because the
19	patient wouldn't be given that agent if they weren't
20	participating in the study. But once that same agent
21	is fully licensed and we start to prescribe it in the
22	normal way, when they participate in, of course,
23	marketing surveillance study, that's an observational
24	study, because they would be having that agent whether
25	they were participating or not.

(29) Pages 113 - 116

5 November 2020

			ТΙ
1	Q.	Is there a risk	
2	SIR	BRIAN LANGSTAFF: May I just ask a question?	
3	MS	RICHARDS: Yes.	
4	SIR	BRIAN LANGSTAFF: Just going back to the start of your	
5		answer there, you were describing where the	
6		intervention would have been done anyway, and you're	
7		simply observing the effect of it. That would be	
8		observational.	
9		One of the situations I've come across on a	
10		number of occasions in cases which I've had to	
11		determine in the past have been cases where there were	
12		two possible forms of treatment: one conservative, the	
13		other interventionist. Both were entirely proper as a	
14		matter of practice, but the choice was left to the	
15		clinician. If the clinician chose the interventionist	
16		and had in the back of his mind that this might be	
17		a benefit to research which he was particularly	
18		interested in doing, would that make it	
19		interventionist or observational?	
20	Α.	Well, that's an interesting question that speaks to	
21		the intent of the person in question. And that's	
22		a really grey one because if he was influenced by the	
23		fact that it was being studied and that introduced	
24 25		bias, that is that's actually a problem because it	
20		affects not only the ethics of the study but also its	
		117	
1		a clinician to keep a patient on the same treatment,	
2		rather than changing to what might have been a safer	
3		treatment?	
4	Α.	I think that's unlikely. That would be really	
5		unethical.	
6	Q.	And in the early and mid-'80s, and I think you were	
7		engaged in research from roughly 1983 onwards at	
8		Sheffield, but in that period of time in the early and	
9		mid-'80s, what were the safeguards against clinicians	
10		undertaking something that was unethical, or	
11		a safeguard that might address some forms of	
12		subconscious or unconscious bias?	

subconscious or unconscious bias? 12

- 13 Α. Well, subconscious or unconscious bias is a problem in research anyway throughout which is why the strongest 14
- evidence is always considered to be the results of 15
- a randomised controlled trial. Not that that trial 16
- 17 design has -- doesn't have weaknesses, because it's
- 18 often criticised because the subjects that participate
- 19 in such a trial are selected, but it's the most
- 20 reliable way of excluding bias.
- 21 Occasionally, you can also exclude bias by
- 22 following natural experiments. And one example of
- 23 that is a trial -- well, not a trial, an observational 24
- study that we conducted between Scotland and England, 25 looking at the effect on the immune system of

- 120
- (30) Pages 117 120

1	interpretation, because you want to avoid that sort of
2	bias, you know? That is the advantage of a randomised
3	comparison because then you have negated any biases
4	from the operators. And randomised comparisons are
5	always interventional by definition but can be
6	difficult to conduct.
7	I conducted a randomised trial comparing high
8	dose with low dose immune intolerance, for example, in
9	17 countries, and the biggest difficulty that we had
10	there was that we were doing the study because so much
11	was unknown, but nevertheless, clinicians around the
12	world had very fixed views. They were all convinced
13	that they were doing it the right way, and if they
14	had, we wouldn't have needed to do a trial. So many
15	refused to participate because they disagreed with our
16	protocol. You know, what can you do? So yeah,
17	it's difficult.
18	MS RICHARDS: And picking up from the Chair's point,
19	professor
20	SIR BRIAN LANGSTAFF: Well, it was a question, not
21	a point.
22	MS RICHARDS: Sorry, question.
23	Is there a risk that observational research,
24	the undertaking of observational research, the desire

of a clinician to follow that through, might lead 25

### 118

different types of concentrate.

1

2 3

4

5

6

7

8

9

20

Now, in those situations, the whole of Scotland used a Scottish high-purity product that had been prepared in one way because that was what was available to them, and the whole of England used different materials. So just through circumstance, you had two groups that were all treated in the same way, and that offered the opportunity to compare the two.

10 In a way, the next best thing would have been to randomise them. And incidentally, the participants 11 12 were -- although it was an observational study, we had 13 to collect a lot more data than would have been normally the case, so they were consented in the same 14 15 way as they would have been for an interventional 16 study.

#### 17 Do you know --Q.

18 A. The thing to do, to be honest, and this is what we try

- 19 to do currently, is to assess each case individually
  - and to make a judgment: is this an observational
- 21 thing? If you have to take additional samples, or are
- 22 you doing something burdensome, then it becomes
  - interventional, and you have to get consent for that.
- 23 24 Q. Do you know, in that period of '83 to '87 when you 25 were at Sheffield, and I appreciate you were the

1		junior to Professor Preston and Dr Greaves in terms of
2		your role at the time, but do you know what, if any,
3		ethical approval systems or other safeguards there
4		might have been in place at that time?
5	A.	•
6	7	basic principle has been the same throughout this
7		period. That is, if you want to do a clinical trial,
8		you have to take it to the Ethics Committee. They
9		have to approve everything, not least the patient
10		information and the consent form. They have lay
11		members on every Ethical Committee, and they take
12		a particular interest in that area, as you might
13		expect. They also have statisticians on an Ethics
14		Committee.
15		So if, for example they consider that the trial
16		design is inadequate, then they could that is an
17		ethical issue. It's unethical to do a clinical trial
18		that is inadequate to answer the question because it
19		potentially puts in theory, it would possibly put
20		patients in harm's way without having any hope of
21		answering the question, and that would be considered
22		unethical.
23		So if you want if you participate in
24		a clinical trial of a new product, for example, the
25		Alphanate trial that was conducted in Sheffield in
		101

### 121

1		your local R&D department and get approval from both
2		of them before you're allowed to start.
3	Q.	And then moving to a completely different topic, in
4		your capacity as hospital haematologist responsible
5		for the blood bank, which I think was when you were at
6		Liverpool, did you ever become aware of any ongoing
7		issue about HBV infection and pools contaminated with
8		hepatitis B?
9	Α.	No, I can't remember.
10	Q.	This morning, I asked you about the notification
11		process in relation to variant CJD. Do you know
12		whether there was any, in earlier years, any
13		notification system to UKHCDO of suspected
14		contaminated batches contaminated with HIV or with
15		non-A, non-B hepatitis, hepatitis C? Was that
16		something that used to be drawn to the attention of
17		UKHCDO directly?
18	Α.	We had an adverse event working party and an adverse
19		event reporting system which I will be describing to
20		you in greater detail in the final chapter of our
21		UKHCDO Rule 9, and that collected adverse events,
22		including any new reports of hepatitis from the early
23		1980s onwards. I was a member of that committee.
24		The data was collated by the National
25		Haemophilia Database. We did we do report adverse

1		1984, all the participants would have been consented.
2	Q.	That's, I think, the trial that you referred to
3		yesterday, is it, with the heat-treated products?
4	Α.	Yes.
5	Q.	Did you have any involvement in that trial yourself,
6		in terms of selection of patients and what information
7		was or wasn't given to the patients?
8	Α.	Well, I don't remember much about it because it covers
9		a period when, for part of that time, I was at the
10		Children's Hospital, partly because I was moving
11		about, they got the other senior registrar to get more
12		involved, and her name is actually one of the
13		co-authors. But my recollection is that patients were
14		given an information sheet and had to write consent.
15	Q.	Moving to a different topic no, actually, sorry,
16		before leaving that. That trial would that trial
17		have gone before any kind of Ethics Committee for
18		approval?
19	Α.	Oh, yes, yes. At that time, they would have all been
20		hospital ethical committees. Much later, they
21		introduced a system for national approval, so you go
22		to an MREC, and they're arranged regionally for
23		multi-centre trials involving more than four centres.
24		But even when you get national approval, you still
25		have to take it to your local Ethics Committee and
		122

1	events that we think are specifically related to
2	a product to the manufacturer so that they can satisfy
3	their regulatory requirement to report it on to the
4	regulators. That's the European Medicines Agency and
5	the Food and Drug Administration.
6	This has result in the withdrawal of some
7	batches, which seemed to be giving lots of reactions,
8	for example. The investigation of new reports of
9	hepatitis after about 1988 all proved to be false
10	reports, insofar as it was genuine hepatitis but not
11	a new diagnosis.
12	You can imagine that we were particularly keen
13	in the years after 1985, when products had been
14	introduced that were marketed as only
15	hepatitis-reduced, to evaluate any further episodes of
16	hepatitis sneaking through.
17	And there were certainly reports with some
18	products in Canada as late as 1988 of some of the
19	virally attenuated products transmitting hepatitis C.
20	And hepatitis B seemed to be more difficult to
21	eradicate than hepatitis C, but then, on the other
22	hand, all the donors were tested for hepatitis B from
23	probably the early 1970s. So the only patients who
24	would have got through that testing net would have
25	been those who were in the window period at the time

.

1 2

3

4

5

6

7

24

25

.. . .

. . . ..

. .

1	that they donated. That is to say, the period when
2	they were incubating hepatitis B but had not yet
3	become positive for the tests. The window period,
4	which we haven't discussed so far, is a problem with
5	the all viruses, and another one of the reasons why we
6	wanted to get away from plasma-derived products.
7	If you go through this period, from the
8	eighties through to well, the present day, really,
9	you will see that donors have been subjected to more
10	and more tests, of increasing sensitivity, to
11	progressively reduce that window period. And of
12	course, donor selection is also very important with
13	all of that.
14	The other thing that's really important that we
15	haven't talked about before is repeat donation,
16	because the safest donor is a donor that repeatedly
17	donates. If you go back to the early 1980s, 50% of UK
18	blood donors were first time donors, and often the
19	only time they donated. They may only have donated
20	once. And if you test those for viruses, you'll find
21	most of the positives will be in first-time donors.
22	So they are the most risky donors. The safest donors
23	are donors who come repeatedly. And of course they're
24	tested every single time.
25	By the end of the eighties, at least 90% of

### 125

1	they approached it was they saw how many recipients of
2	multiple blood donations subsequently developed
3	hepatitis. Now, these would be patients undergoing,
4	say, open heart surgery, or some other surgical
5	intervention that required a large blood transfusion.
6	So they would be exposed to a number of donors
7	as a consequence of that. So you could evaluate how
8	many donations they'd been exposed to, and then you
9	see what percentage of them develop non-A, non-B
10	hepatitis thereafter. And from that you derive
11	a figure for the number of the donors that were
12	infectious for non-A, non-B hepatitis.
13	Now, clearly, that methodology is relatively
14	soft, and you'll find somewhere in my exhibits there
15	is a table I know you're going to subject this to
16	independent statistical analysis which shows the
17	risk of contracting non-A, non-B hepatitis, based on
18	the number of donations that you're exposed to, and it
19	gives a range of percentage. The average is about
20	0.75% of blood donors being infectious for non-A,
21	non-B hepatitis in the very early '80s, based on that
22	methodology, but it varied.
23	There are a number of papers that looked at
24	this from different countries, and of course, we do
25	know that the incidents of hepatitis C varied from

	1	blood donors were repeat donors. And in the
2	2	commercial sector, people encouraged that too. So
3	3	these days, most plasma is actually derived from
2	4	plasmapheresis donors, who can donate far more
(	5	frequently, because they're only donating plasma, and
6	6	they can donate as often as once a month.
7	7	Anyway, I think I drifted off the subject
8	3	a little.
Ş	9	SIR BRIAN LANGSTAFF: May I just ask a question.
1	0	MS RICHARDS: Yes.
1	1	SIR BRIAN LANGSTAFF: You were going to back to the early
1	2	1980s, and you said 50% of the blood donors then were
1	3	first time donors, and most of the positives were in
1	4	that group. If you're talking in terms of positivity
1	5	for hepatitis C, or non-A non-B, as it was, how do you
1	6	know?
1	7	A. Well, that's a good question.
1	8	You'll see in my report, and in fact in some of
1	9	the exhibits the exhibit you showed me earlier
2	0	which has the proposal to the Department of Health of
2	1	the hepatitis C look-back who reviews this evidence
2	2	quite well, I thought, rereading it in the early
2	3	eighties there were a number of studies trying to
2	4	assess the frequency of non-A, non-B hepatitis.
2	5	Obviously without a specific test. And the way that

### 126

country to country. It was higher in America than in the UK, and higher again in places like Italy and Japan, for some reason, also had relatively high rates. So the rate will genuinely vary from country to country. But based on that soft methodology, in the early '80s we think it would have been between about 0.5 and 1%.

8 Now, there are papers later on in that decade 9 from Contreras et al which I also quote. Once they 10 had a test, they were able to assess the prevalence in 11 the donor population accurately, bearing in mind also 12 that the donor population is not a cross-section of 13 society. You know, there are certain ethnic groups 14 that donate less, which is actually a practical 15 problem because there are ethnic differences in the 16 frequency of blood groups as well. So that does give 17 rise to practical problems. 18 When I did my transfusion training, for 19 example, blood donations from people from the 20 Afro-Caribbean community were coded so you could 21 identify them because they were particularly useful if 22 you had a patient with sickle cell trait, for example,

23 if they needed a transfusion.

Anyway, I'm drifting again. Um --(overspeaking) --

		Т
1	SIR BRIAN LANGSTAFF: If I can	
2	A (overspeaking) this paper	
3	SIR BRIAN LANGSTAFF: Sorry, you're going to talk to me	
4	about the Contreras paper. Sorry, I'm interrupting.	
5	My apologies. Please.	
6	A. The Contreras paper showed a tenfold reduction	
7	relative to those early soft indication early soft	
8	assessments. And this was attributed to the	
9	introduction of donor selection.	
10	Now, although donor selection you know, this	
11	is pre-donation exclusion. This is the process	
12	whereby all prospective donors have to read the	
13	leaflet, and if they fall into the following risk	
14	groups, not donate, please. Of course, although this	
15	was directed at the reduction in the risk of HIV,	
16	there is an overlap in the risk groups for HIV and	
17	hepatitis C, clearly. So donor selection dramatically	
18	reduced the risk of hepatitis C as well.	
19	SIR BRIAN LANGSTAFF: Just going back to the start of your	
20	answer, the question really arising out of your	
21	comment that about 50% of the donors would have been	
22	one-time donors, and they were the ones who created	
23	more of a problem than the regular donors back in the	
24	early '80s.	
25	Suppose that you had as your first example	
	129	
1	has as far as you know, no basis in the literature?	

1	has, as far as you know, no basis in the literature?
2	A. Sorry, I don't understand.
3	SIR BRIAN LANGSTAFF: It's all right, it's probably more
4	of a comment than a question.
5	That's all I need to ask. Thank you very much.
6	MS RICHARDS: Sir, I've got some questions still, but
7	I note the time and I think it might be sensible to
8	have a break and then I can complete the questions.
9	SIR BRIAN LANGSTAFF: Yes, of course.
10	Counsel will she needs to field questions
11	from people who aren't here, to talk to her and give
12	her further questions, because you will appreciate
13	that counsel to the Inquiry ask the questions in an
14	inquiry, and, in general, core participant counsel
15	don't. That's a generality, but it's likely,
16	I suspect, to be true in this case, particularly when
17	they're not here in any event.
18	So we shall take some time just to do that.
19	How long do you think you need?
20	MS RICHARDS: I've got most of the questions, sir, there's
21	only a handful I haven't been able to consider, so
22	half an hour will be ample. But that will give
23	Professor Hay an opportunity to take a break and those
24	watching to have an opportunity to take a break as
25	well.

1	was surg	ery, involving quite number of transfusions,
2	suppose,	let's say, ten bags: five from first-time
3	donors, f	ive from other donors. How would you know
4	which ba	g contained the infection if the person who
5	was havi	ng the surgery actually later on developed and
6	showed s	signs of hepatitis non-A, non-B? That was
7	the point	I was trying to understand.
8	A. Isee. W	ell, in the absence of a test, you wouldn't
9	necessar	ily. You could go back to all those donors
10	and test	them for what you knew about, see if any of
11	them had	chronic liver disease and take a history.
12	SIR BRIAN L	ANGSTAFF: Was that done, do you know?
13	A. Well, the	re were latterly look-back exercises
14		d by the Transfusion Service, but they did not
15		il after hepatitis C testing became
16		, and they were really directed at people who
17		eat donors who turned out to be positive for
18		C, then they went back and traced the
19		s of previous donations.
20	•	ANGSTAFF: I understand the repeat donors, it's
21	the one-t	ime donor and their infectivity which I was
22		ng to understand.
23		time donor, you couldn't do anything about.
24		ANGSTAFF: Does it come down to the fact that's
25	an estima	ate, really, which you have given us, which
		100
		130
1	SIR BRIAN L	ANGSTAFF: Yes, so we'll have a cup of tea and
2		ck at will four o'clock be all right?
3	MS RICHARE	•
4	SIR BRIAN L	ANGSTAFF: Will four o'clock be okay?
5	Four o'cle	-
6	(3.25 pm)	
7	<b>、</b>	(A short break)
8	(4.00 pm)	, , , , , , , , , , , , , , , , , , ,
9	,	ANGSTAFF: Yes.
10	MS RICHARE	<b>DS</b> : Professor Hay, you told us yesterday that in
11	relation to	o Sheffield, there was no programme for
12		xis and that that was formally introduced many
13		er. Were you aware of patients on home
14	treatmen	t administering treatment to themselves on
15		lactic basis?
16		ere patients during the 1970s and in fact there
17		ophylaxis and Home Therapy Working Party
18		y Dr Peter Jones. I have been unable to
19		ny of the minutes of their meetings but they
20		t on an annual basis to the annual general
21	-	of the UKHCDO and their findings are of some
22	interest.	<b>.</b>
23	I	think that the I wasn't aware of this

working party at the time, you understand, but

24

25 Peter Jones was quite well known. He wrote a chapter

### The Infected B

1		on comprehensive care in the first edition of
2		Hemostasis and Thrombosis, which was one of the first
3		textbooks of haemostasis I ever bought. And that
4		chapter influenced me, and it did describe prophylaxis
5		and prophylaxis was being practiced quite widely in
6		his centre, and at Lord Mayor Treloar. And during
7		that time, they published some papers on prophylaxis
8		which you're probably aware of. So I was aware of
9		prophylaxis, and it had been pioneered by
10		Inga Marie Nilsson in Malmo in Sweden, and to some
11		extent also in Holland.
12		So we knew about it, particularly in children,
13		but it wasn't widely practiced for a number of
14		reasons, not the least of which was the relatively
15		inadequate supply of product, and then of course, when
16		HIV came along, treatment intensification did not seem
17		like a very good idea.
18	Q.	I know there was no programme of prophylaxis in
19		Sheffield, but were patients informally, and of their
20		own initiative, using their home treatment on
21		a prophylactic basis, to your knowledge?
22	Α.	No, I don't think that they were. Not at that time.
23	Q.	Then moving from that to funding from pharmaceutical
24		companies to UKHCDO, during your time as a member of
25		UKHCDO, how were decisions made about which

133

1		we purchased these products through a national
2		contract, and that has been the case for a number of
3		years. On an individual basis, though, I don't think
4		UKHCDO felt that it had a role to play, or indeed
5		could. You know, in individual conversations, people
6		would recognise that being dependent on a single
7		manufacturer was probably a bad idea anyway, because
8		it made you very vulnerable to issues of supply should
9		that manufacturer have a problem, and it would also
10		open you up to an accusation of bias. So it was
11		normal and general practice to have two or more
12		suppliers, mostly more.
13	Q.	Would you have expected, in the 1980s, discussions
14		about risks and the possible consequences of
15		contracting non-A, non-B hepatitis or AIDS, if those
16		discussions took place, to be recorded in a patient's
17		medical records?
18	Α.	Well, um how should I put this? Certainly in my
19		own medical records you'll get more from reading the
20		letters than what I've written. It may only be
21		mentioned in passing. It was commonly advised that
22		any critical discussions, for example, discussions of
23		Jakob-Creutzfeldt Disease, hepatitis C or HIV, should
24		be noted, even if it's only a short note.
25	Q.	Is the answer to the question, then, they should be

135

Blo	Blood Inquiry 5 November 202		
1		pharmaceutical company would fund the annual general	
2		meeting?	
3	Α.	Well, the manufacturers would approach UKHCDO and	
4		request to sponsor. It was very common, and still is,	
5		for pharmaceutical companies to offer sponsorship for	
6		meetings. That is all regulated. We would wish to	
7		have sponsorship from as many different sources as	
8		possible to avoid any accusation of bias.	
9	Q.	And what involvement, if any, in the annual general	
10		meeting would this sponsorship give the pharmaceutical	
11		company?	
12	Α.	They would be allowed to attend certain parts of it.	
13		They would not be allowed to attend business meetings.	
14		And they would be allowed to set up a stall in an	
15		exhibition area. It's very common for scientific	
16		meetings of all sorts to have a commercial exhibition	
17		where manufacturers are allowed to set up a stall.	
18		That, again, is regulated in various ways, and the	
19		regulations will vary from country to country.	
20	Q.	And what, if any steps, were taken within UKHCDO to	
21		try to ensure that this sponsorship didn't influence	
22		members' decision making about which products to	
22		purchase for treatment at their centres?	

- 23 purchase for treatment at their centres?
- 24 A. I don't think UKHCDO felt that they had a part to play
- 25 in that. Latterly, a lot of this is regulated because

### 134

1		noted but they weren't always
2	A.	I think that's probably correct.
3	Q.	in your experience?
4	A.	I would say that the absence of a note doesn't mean
5		that the conversation has not taken place, although
6		I know that it would be a common legal judgment to the
7		contrary.
8	Q.	What role, if any, did lifestyle advice, with the aim
9		of reducing bleeds, have on the treatment of patients
10		under your care in the eighties, in particular mild
11		and moderate haemophiliacs?
12	Α.	Well, it was well recognised early on that the
13		patient's lifestyle affected their tendency to bleed,
14		and the patients were certainly very well aware of it.
15		They find out from experience the sort of activities
16		that might cause them to bleed, and many of my
17		patients have talked to me about the way in which
18		haemophilia hangs over them like a cloud and they're
19		constantly worrying that they might do something that
20		might set something off. You know, something as
21		trivial as stepping awkwardly off a pavement might
22		cause an ankle bleed.
23		Not every patient is like that, of course, and,
24		you know, it was early observed that, for example, you
25		might have a pair of brothers, and one brother is
		136 (34) Pages 133 - 136

25

1		never out of hospital, and you hardly ever see the
2		other one, and the other one's probably got his nose
3		in a book, whilst brother number 1 is bouncing off the
4		walls. And so personality does come into it.
5		There are also other aspects of the clotting
6		mechanism that mean that some patients bleed much
7		less. About 10% of patients with severe haemophilia
8		have a relatively mild bleeding phenotype.
9		So early on, people would be advised to avoid
10		contact sports, to remain physically fit if they
11		could, because if they had good muscle bulk, they
12		would be less likely to bleed, but not to go looking
13		for trouble, essentially. So no rugby, no football,
14		and no boxing, that sort of thing. But running,
15		cycling, swimming were all good things to do and were
16		encouraged, and we eventually started to encourage
17		people to go to the gym as well. So lifestyle was
18		quite important.
19	Q.	And then if we could have on screen HSOC this on
20		a completely different topic, professor 0005123,
21		please, Soumik.
22		So this is a letter from you to Mr Barker at
23		the Haemophilia Society in November 1994. If you
24		could go down to the bottom half of the page, please.
25		You say this:

### 137

1		issue with him?
2	Α.	Well, I wanted to know what the Haemophilia Society's
3		view about litigation was. Because a lot of cases
4		were being brought which had little chance of success,
5		because to succeed, they would have had to prove
6		individual negligence, and the patients in question
7		had not been managed in an unusual way. There were
8		patients who had severe haemophilia but were,
9		nevertheless, claiming that they should have been
10		treated with DDAVP, though they would not have
11		responded to that.
12		Now, I had every sympathy with their desire to
13		be compensated, because they had clearly been damaged
14		by their treatment. And my feeling at that time was
15		that surely this was a classical example of
16		a situation where there should be some form of
17		no-fault compensation scheme. But, in fact, I was
18		told that whilst there was all this litigation going
19		on in the background, no such scheme would be put
20		together.
21		So, you know, a lot of the litigation that was
22		going on at that point seemed unlikely to succeed.
23		There was more and more of it. We then had the
24		campaign where a whole series of patients from around
25		the country reported the Centre Directors to the

1	"I would very much like to have a chat with you
2	about hepatitis C. I am obviously sympathetic towards
3	increasing patient awareness, but I do not feel that
4	the recent press coverage has been helpful in any
5	way."
6	Then you talk about one specific patient, and
7	I'm not going to ask you about the specifics in
8	relation to that or any other individual.
9	Then you say:
10	"I'm rather worried that the whole thing is
11	getting out of hand. If the Society wants patients
12	who have contracted hepatitis C to obtain some
13	compensation, I am not sure that encouraging them in
14	their mistaken belief that they have a good case of
15	negligence is the right way to go about it. I get the
16	strong impression that although that's not the
17	Society's official view, that some members of the
18	executive are certainly encouraging this point of
19	view, and a lot of the lawyers are doing so. I no
20	longer have any very clear idea of the Society's
21	position on this, despite the recent rather vague
22	press releases, and I would like to talk to you about
23	it."
24	What was the purpose of writing to Mr Barker in

What was the purpose of writing to Mr Barker in these terms and the purpose of asking to discuss this

1	General Medical Council, claiming various acts of
2	professional misconduct, which were, as far as I knew,
3	and certainly in relation to the two complainants
4	against me, completely false.
5	And, you know, I was very sympathetic towards
6	a campaign for compensation, but that was hardly
7	calculated to get me on site. How would you feel if
8	someone made a complaint to the Bar Council about you,
9	for example?
10	So and I had gained the impression that
11	elements in the Haemophilia Society were encouraging
12	this. It was a slightly circular problem, though,
13	because when I was a little bit more senior, a little
14	bit further on, and was talking to the Department of
15	Health, what they told me was, so long as there was
16	litigation going on in the background, they couldn't
17	put any scheme into place, because it would influence
18	the outcome of the litigation.
19	And I think a lot of my colleagues and I felt
20	as if we were slightly caught in the crossfire,
21	because we were the closest target for the patients'
22	ire, they blamed their medical attendants for their
23	suffering, and we were not in any position to help
24	with financial compensation. It was really the
25	Department of Health that they needed to approach.

1	But we were the only outlet, and they sought to
2	increase the profile of their campaign by suing us all
3	and reporting us to the General Medical Council.
4	SIR BRIAN LANGSTAFF: Excuse me, can you just help and
5	tell me who it was that you spoke to at the Department
6	of Health who suggested that having a form of
7	compensation scheme would in some way influence the
8	outcome of the of a court case? In other words,
9	I think the suggestion is it might influence a judge
10	in favour of or against the case.
11	A. I can't honestly remember. The various people
12	that I dealt with at the Department of Health were
13	Charles Lister, David Kutowski, and William Connon,
14	over the years. It was probably one of the earlier
15	ones, most likely Charles Lister.
16	SIR BRIAN LANGSTAFF: Thank you.
17	A. And of course there was the class action that I was
18	involved in.
19	SIR BRIAN LANGSTAFF: Yes.

- 20 A. Which was brought -- that was not claiming negligence,
- 21 interestingly. That was brought under consumer
- 22 protection legislation, which was a very interesting
- 23 approach.
- 24 MS RICHARDS: Was this letter an attempt by you -- or, the
- 25 meeting that you proposed follow it, an attempt by you

### 141

1	Q.	I'm asking not specifically about the complaints
2		against you, and you've explained what the outcome of
3		those were, that they didn't go anywhere. But in
4		terms of it being part of a campaign, you've said it
5		was well recognised. By whom? Do you mean that was
6		the view of the Haemophilia Centre Directors?
7	Α.	Well, it was well recognised by Haemophilia Centre
8		Directors, and I refer to it in correspondence with
9		one of the patients who'd actually raised it with me.
10		It's my understanding that this was done to raise the
11		profile of their campaign.
12	Q.	But the factual basis for that understanding is
13		discussions between Haemophilia Centre Directors?
14	Α.	Yes.
15	Q.	Could we have on screen, please, HCDO0000266_004,
16		please.
17		This is another letter from you. This is a few
18		years later, to the Haemophilia Society, to
19		Ms Pappenheim, December 2002. You're responding to
20		a letter from her, and it's about what are said to be
21		difficulties of accessing medical records.
22		Let me just pick it up at the bottom of the
23		page because this may be of more general interest.
24		You say in the last paragraph:
25		"Medical record-keeping 20 years ago was not as

1		to persuade the Haemophilia Society to dissuade
2		patients from bringing legal claims?
3	Α.	No, it was an attempt to clarify what their position
4		was.
5	Q.	To what end?
6	Α.	I never did anything, either individually or
7		collectively, to try to dissuade people from
8		litigation. I did have an exchange with what's her
9		name? Well, with one patient, you sent me a letter,
10		in evidence, on that was in response to an enquiry
11		from her in general terms.
12	Q.	You referred to a campaign to bring cases to the
13		General Medical Council. Obviously, Professor Hay,
14		you're familiar with the complaints that were made
15		against you. But what's the basis for your assertion,
16		the factual basis for your assertion, that this was
17		part of a campaign as opposed to individual cases?
18	Α.	Well, it was well recognised at the time that that was
19		the case. I was not chairman at the time.
20		Professor Hill was chairman at the time. He actually
21		knows how many of these have were lodged. I don't.
22		But there were a number. At one point I was told that
23		there might be as many as 50. There were certainly
24		two against me, both of which were entirely false, but
25		they took a long time to resolve.

1		scrupulous even as it is now, and so patients should
2		not be surprised or disappointed if they find that
3		their records do not contain detailed records of batch
4		numbers, et cetera, that may be medicolegally
5		important with hindsight but had little apparent
6		clinical relevance at the time."
7		Surely batch numbers would have had
8		considerable clinical relevance at the time for two
9		reasons? One is the single product batch dedication
10		policy being followed at Sheffield and some other
11		centres, and secondly, because that's the way in which
12		you trace implicated batches.
13	Α.	Well, you'll remember yesterday we talked about
14		ledgers. And every single unit of Factor VIII and
15		Factor IX in the Manchester centre and, as you have
16		already learned, in the Sheffield Centre is recorded,
17		so we do record the batch numbers, but they are
18		recorded in a ledger. Now, in Manchester, I think
19		they may have had some other records as well before
20		I came, but they are recorded in a ledger.
21		Now, the problem with showing the patient
22		a ledger is that it's full of information about
23		treatment for other people. You can't show that
24		patient. You might extract it if requested, but that
25		would obviously be a lot of work. But you can't show

	one patient's information to another. So, yes, it is
	recorded, but not invariably in the patient's notes.
Q.	If a patient makes an application for information that
	they believe is in their medical records wrongly, for
	the reason you've given, but the centre nonetheless
	holds it in another form, would the appropriate
	response of the centre not be to tell the patient that
	that information is held and provide it to the patient
	in some form, photocopying the relevant page of the
	ledger and just redacting out the irrelevant entries?
Α.	Well, if they make that request, but at that time,
	they were just looking for evidence that they'd been
	treated with one product or another, and the batch
	numbers were not relevant, frankly. They really
	wanted to know which supplier had supplied the product
	they'd been treated with for specific episodes, and
	that would be in the notes. Because, apart from
	anything else, that's on the prescription chart.
Q.	But the point I understand to be being made here is
	that this information often won't be in the records.
	A patient can't know to request a copy of the
	information in another form such as a ledger unless
	they're told by the centre that the information exists
	in that form.
	A.

25 A. Yes, but the request that the patient asks for are

# 145

1	requesting the records and getting an expert to go
2	through the records and providing a report. They were
3	basically asking the patient to answer certain generic
4	questions, and the generic question that the patient
5	seemed to be interested in was: had they been treated
6	with a certain brand of American concentrate during
7	a certain period of time? Because the class action
8	was against that manufacturer.
9	So lots and lots of the patients came along and
10	they wanted to know that, and so they requested their
11	notes. Their notes were made available to them. But
12	then I think the problem often was that even though
13	the information they were looking for was actually in
14	the notes, they didn't know exactly how it was
15	presented, and they weren't quite sure what they were
16	looking for, and they might be presented with several
17	thick volumes of papers, because these patients had
18	been patients of the hospital often for many years,
19	and so their notes were really voluminous. And, to be
20	honest, when I got to Manchester, a lot of the notes
21	were not in great shape.
22	One of the reasons for that being that if you
23	sent them to the Medical Records Department to be
24	re-bound, they would hang on to them for a couple of
25	months. And these patients are presenting fairly

1		their aliniaal records, and these are provided. And			
		their clinical records, and those are provided. And			
2		to be honest with you, my involvement with that would			
3		be extremely peripheral. Because they make a request			
4		for the patient records, that goes to the medical			
5		records officer, they send me a form, which I have to			
6		sign, or the consultant that is looking after them has			
7		to sign, and we sign it, giving permission, and that			
8		goes back to the medical records officer, and they			
9		make the notes available. Or if the patient has			
10		requested a copy, they will arrange to copy what they			
11		have and present it to the patient.			
12	Q.	If we go over the page please, Soumik, to the second			
13		paragraph, five lines down it says:			
14		"Unfortunately there appears to be a feeding			
15		frenzy amongst the patients at the moment."			
16		Then you explain you don't have the time to go			
17		through the records of patients individually, and			
18		I understand the latter point. What do you mean by			
19		there being a "feeding frenzy amongst the patients"?			
20	A.	Well, at that point in time, there was a legal			
21		company, I can't remember which one it was, and they			
22		were trying to mount a class action. And as far as			
23		I can see, they were trying to do this relatively on			
24		the cheap. And by that, I mean they weren't going			
25		through the usual medical negligence process of			
20		anough the usual medical negligence process of			

### 146

1		regularly. You didn't want their notes out of					
2		circulation for that long. And at one point					
3		I actually employed somebody to try to organise the					
4		notes and re-bind them. But we gave up after a little					
5		while because it was all happening so slowly. And he					
6		actually did that in the department.					
7		So with some of these patients I actually went					
8		through the notes with them to help them to find what					
9		they were looking for. I can remember spending					
10		three-quarters of an hour one time, in clinic, with					
11		a patient who had been through his notes, had been					
12		unable to find them, then we shuffled through them					
13		all. It took me quite a long time. I showed him what					
14		he wanted to find. I explained to him what it					
15		signified. And then he came back to have another look					
16		at his notes, and he couldn't find it again, and					
17		accused us of taking this bit out. And you know,					
18		as if we would have any motive to do that. You know,					
19		why should we edit his notes when he's not even trying					
20		to sue us?					
21		Anyway, there was a lot of that, and it was					
22		generated by an attempt at a class action.					
23	Q.	One final document sorry, two final documents. The					
24		penultimate one, HSOC0020017, please, Soumik.					
25		There is was a letter you wrote to the					

(37) Pages 145 - 148

24

25

1	Department of Health in November 2005, and you've
2	addressed it, I know, in your statement, and the
3	context was the issue of funding for recombinant.
4	If we go further down, please. Can we go to
5	the next page. Yes.
6	So you say that:
7	" any attempt to roll back the policy of
8	recombinant would result in a considerable
9	increase in such activity, with multiple judicial
10	reviews, other legal activity and considerable patient
11	protest. I suspect that it would cause complete chaos
12	both for the [Department of Health] and for
13	Haemophilia Centres."
14	Then you say this:
15	"Many centre directors are already fighting
16	a low grade guerrilla war with patient activists who
17	want a hepatitis C public enquiry and who are
18	reporting their centre directors to the GMC and
19	manipulating both newspapers and television."
20	I've already asked you about the GMC, I don't
21	need to ask you about that again.
22	But why did you characterise attempts by
23	campaigners to achieve a public inquiry as the
24	fighting of a low grade guerilla war by directors
25	against activists?

# 149

1		held 20 or 30 years ago, rather than now. You know,					
2		if there was going to be an inquiry, the earlier the					
3		better. So that's the background to that.					
4	Q.	You I'm not going to put on screen, but you've					
5		dealt with it in your witness statement, but you also					
6		sent two emails to the Archer Inquiry which you've					
7		said in your witness statement the tone and wording of					
8		which you accept was intemperate and which you regret.					
9	Α.	Yes.					
10	Q.	Do you understand why patients or some patients at					
11		least might want a public inquiry?					
12	Α.	Of course I do.					
13	Q.	Do you					
14	Α.	And, you know, the patients and their relatives have					
15		suffered greatly. And I perfectly understand on an					
16		emotional level how many of them have been very					
17		embittered by their experiences. I perfectly					
18		understand that.					
19	Q.	And do you accept that patients have a right to, if					
20		they believe things have been done in a way that was					
21		wrong, or misguided, or incompetent, have a right to					
22		raise that through a range of different appropriate					
23		forums, in principle?					
24	Α.	In principle, I have no problem with that whatsoever.					
25		Similarly, if someone has behaved in a negligent way,					

BIO	oaı	nquiry 5 November 202
1	Α.	Because of the way that they were conducting their
2		campaign. Reporting your Centre Director to the
3		General Medical Council on the grounds of well, for
4		reasons that are entirely fictitious is a hostile act.
5		And how they ever imagined that that would influence
6		the Department of Health into giving a public Inquiry
7		is entirely a mystery to me.
8		What happens when you report somebody to the
9		General Medical Council is that that individual gets
10		no support whatsoever from their trust. Nobody wants
11		to interfere with the action, and the doctor in
12		question is isolated. If it's a serious complaint,
13		they may be suspended from work. That certainly
14		didn't happen to me. But, you know, it's a serious
15		matter and it causes a lot of work and a lot of
16		aggravation.
17		And so I think to describe this, plus a degree
18		of mischievous litigation, as "low grade guerilla
19		warfare" is, if anything, a little bit of an
20		understatement, and it goes back to what I said before
21		about the medical profession feeling that they were
22		caught in the crossfire. Because we had very little
23		influence over whether there would be a public inquiry
~ .		

or not, and I think it's probably an uncontroversial thing to say that this inquiry might have been better

### 150

1		it's entirely reasonable that they should take legal				
2		action.				
3	Q.	One final document, HSOC0001265. It's the next page.				
4		Well, actually, we'll look at we'll go to the next				
5		page, first of all.				
6		This is a letter sent to the chief executive of				
7		the Haemophilia Society in September 2006. If we just				
8		go down to the bottom of the page. It's sent by you				
9		in your capacity as Chair of UKHCDO. And then if we				
10		just go up again, it says in the third paragraph:				
11		"The Committee asked me to emphasise to you				
12		[this is the Advisory Committee of UKHCDO] their				
13		collective view that a public enquiry [sic] into this				
14		matter is not in the patient's best interests and is				
15		likely to harm rather than enhance patient care."				
16		Why did you think that?				
17	Α.	Well, I was reporting back the discussion from the				
18		Advisory Committee.				
19	Q.	Well, it's				
20	Α.	And I think they felt patients were saying that				
21		there was some sort of conspiracy of silence which				
22		I don't think we recognised. I certainly, on				
23		a personal basis, have always tried to be as open and				
24		transparent as possible. So we did not feel that				
25		there was a conspiracy of silence, and when the				

1	patients said, "We want to know the truth," we weren't					
2	quite sure what truth they were after because, you					
3	know, we felt that we had been quite open.					
4	And when it comes to the suggestion that this					
5	might harm them, well, I have to say to you that					
6	I have seen many patients after the onset of this					
7	inquiry who have been quite distressed by it. It has					
8	not been universally welcomed by the body of patients.					
9	I think it would be true to say that there is a lot of					
10	ambivalence out there. Many patients who have come to					
11	terms with what they've been through in the height of					
12	the HIV era were upset that this raked it all up					
13	again.					
14	Now, I appreciate that that won't be the					
15	universal view, and I'm sure that your witnesses very					
16	much welcome the inquiry, but other patients don't.					
17	You will find a wide range of opinions from the					
18	patient body, but I've had to have many long					
19	conversations with some of my patients, some of them					
20	in tears because this has brought it all bubbling back					
21	up to the surface. And they have clearly suffered					
22	greatly during the HIV era, losing their children, for					
23	example, or their husbands, you know, and I can think					
24	of nothing worse than to lose one's child from an					
25	iatrogenic illness.					

#### 153

1		number of years you have been a Centre Director?					
2	Α.	Yes, absolutely. And in the early years, there would					
3		be odd batches rather than a whole product re-call.					
4		It would be unusual to re-call a whole product, but					
5		there may be a problem with an individual batch. You					
6		might suddenly get a lot of reports of patients					
7		getting reactions with a specific batch.					
8		They would all be pyrogen tested to minimise					
9		the risk of reactions, but sometimes, nevertheless,					
10		they would give reactions. Reactions are much, much					
11		commoner with plasma and cryoprecipitate and could be					
12		quite severe.					
13	SIR	BRIAN LANGSTAFF: Thank you.					
14	Α.	And as the product purity improves, there were fewer					
15		and fewer of those reactions. Then there were					
16		occasional product re-calls because of things like the					
17		advent of heat treatment. Some unheated products were					
18		re-called, and so on.					
19	SIR	BRIAN LANGSTAFF: Thank you. And how often did that					
20		happen? The unheated product being re-called? Do you					
21		remember?					
22	Α.	Well, that only happened when they were being					
23		introduced back in 1985. BPL re-called some of					
24		well, what was left of their unheated product, and					
25		then they were going to heat it and re-issue it.					

1	You know, I don't dispute for one moment the				
2	degree of suffering that the patient body went through				
3	as a result of all of this. But many patients accept				
4	that the treatment was given in good faith, and it				
5	couldn't have been avoided. And so, you know, opinion				
6	in the patient group is variable. And, you know				
7	MS RICHARDS: Sir, those are my questions. I understand				
8	you may have some for Professor Hay.				
9	Questions by SIR BRIAN LANGSTAFF				
10	SIR BRIAN LANGSTAFF: Yes. It's a bit of a ragbag arising				
11	out of some of the things that counsel has been				
12	through with you.				
13	The first is this: you mentioned early on in				
14	your evidence the issue of product re-calls.				
15	A. Yes.				
16	SIR BRIAN LANGSTAFF: And I just wonder if you can give me				
17	some sense of how often products supplied to you by				
18	a commercial supplier or, for that matter, by Elstree,				
19	were re-called.				
20	A. Not very frequently.				
21	SIR BRIAN LANGSTAFF: So in terms of in any year, if				
22	you could average it, how often might it happen?				
23	A. Oh, much less frequently than that.				
24	SIR BRIAN LANGSTAFF: I see. So the number of times that				
25	you've had a product re-call would be less than the				
	454				
	154				
1	SIR BRIAN LANGSTAFF: And that was the material that you				
2	found unusable because it didn't dissolve very easily?				

~			
3	Α.	That's	right.

# 4 SIR BRIAN LANGSTAFF: Thank you.

- The second thing I wanted to ask you about was
- 6 this: when you were talking about relationships with
- 7 the pharmaceutical companies, you mentioned that
- 8 sometimes a pharmaceutical company would ask you, or
- 9 the haemophilia doctors, to conduct an analysis, and
- 10 you would charge them for it.
- 11 A. Yes.

5

#### 12 SIR BRIAN LANGSTAFF: May I ask the basis upon which the

- 13 charge was worked out. Was it the cost to you, with
- 14 perhaps a small profit element, or was it the amount
- 15 that you thought the pharmaceutical company might be
- 16 willing to pay?
- 17 A. It's a compromise between those two, I would say. We
- 18 do not make a huge profit on it, but we need to cover
- 19 our costs. And that cost is currently calculated by
- 20 a manager.
- 21 SIR BRIAN LANGSTAFF: Did you ever have any, or much
- 22 push-back from the company to say, "Oh, we won't pay
- 23 that"?
- 24 A. Sometimes. Yes.
- 25 SIR BRIAN LANGSTAFF: But not usually?

1	A.	Well, we tried to avoid getting into that position by				
2		not charging an outrageous amount.				
	3 SIR BRIAN LANGSTAFF: I see. Right.					
4	5					
5		talking to patients about the results of their HIV				
6		test, you observed that you thought that				
7		Professor Preston's approach in Sheffield was a good				
8		one. You said the different clinicians had different				
9		practices, some good, some not. Can you give me more				
10		detail about the some that were good and the some that				
11		were not?				
12	Α.	Well, I didn't feel that the practice in Liverpool was				
13		very good, because as far as I could make out from my				
14		conversations with my patients, they'd been informed				
15		by post and offered very little support. So when				
16		I arrived, I inherited a group of patients who were				
17		understandably very angry, felt very let down. And				
18		I agreed with them, frankly. And they needed a great				
19		deal of psychological support, and many of them were,				
20		quite understandably, very embittered about the way in				
21		which they had originally been informed.				
22		And, you know, I couldn't support that.				
23		Although it was a long time ago, I don't think that				
24		that practice was acceptable, even in 1985.				
25		You know, we didn't know a great deal about HIV				
		157				

#### 1 a degree of uncertainty about the outlook. 2 SIR BRIAN LANGSTAFF: Were there any other practices 3 elsewhere that you became aware of and thought were 4 poor? Or, for that matter, good? 5 A. Well, I heard that in some places patients were told 6 in groups. And I find that amazing, because there's 7 a confidentiality issue there, apart from anything 8 else. And I think it's always more sensitive to tell 9 people one at a time. I thought that the system 10 that I heard about at the Royal Free was particularly good, where they were taken into a soundproof 11 12 counselling room, with a counsellor, and with someone 13 else, and they were -- they informed them. And 14 I think there is some video evidence of that, that I 15 understand the Royal Free have shared with ... SIR BRIAN LANGSTAFF: Thank you. 16 17 The next question was this: it was in relation 18 to hepatitis-reduced products. Now, plainly, 19 hepatitis-reduced didn't mean to say that it had no 20 hepatitis virus in it. 21 A. Yes. SIR BRIAN LANGSTAFF: But were those products, so far as 22 23 you were aware from your own experience at the time, 24 were they at all successful in producing a lower 25 incidence of the disease?

leu bio	ou inquiry 5 November 202
1	at that time, but we did know that it was potentially
2	fatal, because there'd been some cases of AIDS. We
3	didn't know how many of the patients would develop
4	AIDS, because in those early days, bearing in mind
5	that it was only an antibody test, what that test told
6	us was that the patient had been exposed to the AIDS
7	virus, and there was an expectation, soon to be
8	dashed, that some of those patients would actually be
9	immune, in the way that somebody who'd had hepatitis B
10	but recovered from acute attack would be immune. And,
11	you know, with hepatitis B, 95% of people turn out to
12	be immune without chronic viraemia.
13	Now we expected something similar to emerge
14	with HIV, and sadly it didn't. But, you know, that
15	was the level of knowledge in '85. But I think there
16	was a lot of uncertainty about it and patients should
17	have been told, apart from the fact that having
18	a positive test didn't mean they had AIDS, that they
19	would be monitored and supported.
20	SIR BRIAN LANGSTAFF: Thank you.
21	Were there
22	A. And
23	SIR BRIAN LANGSTAFF: Sorry.
24	So sorry.
25	A. And that we were looking for treatment and there was
	158

1	Α.	My understanding is that they were probably better
2		than we initially thought, because to take Alpha
3		Profilate as an example, as I told you yesterday, 24
4		of the 27 patients in that study did not develop
5		non-A, non-B hepatitis, and three did. But once we
6		used it, commercially, I don't think any of the
7		patients developed hepatitis C from that particular
8		product. Other products were less successful. They
9		were all pretty good at eliminating hepatitis
10		eliminating HIV, because fortunately it turned out
11		that HIV was more heat labile than the hepatitis
12		viruses.
13		And also they were generally a bit better.
14		But we continued to monitor the patient group, both
15		for HIV and hepatitis, for several years after that,
16		because there remained some residual doubt. And as
17		time went by, further viral steps were introduced and
18		further purification steps were introduced to
19		progressively increase the level of viral safety.
20	SIR	BRIAN LANGSTAFF: So, in summing that up, I think what
21		you're saying is that some products, anyway, which
22		claimed to be virus-reduced, actually did work to some
23		extent?
24	A.	Well, most of them worked very well.
25		The exception, about which I'm sure you're
		(40) Denies 457, 400

160

1	going to come back, is to that early Armour product					
2	that transmitted HIV to a few patients, sadly. And					
3	that product is a good example of a product recall,					
4	where they recalled the whole of the product, because					
5	clearly the process as a whole was inadequate.					
6	SIR BRIAN LANGSTAFF: Yes. The last thing I want to ask					
7	you about is simply to get some information about how					
8	the national contract for a product works.					
9	Because of your policy, and your general policy					
10	that we've heard from others, of not all the eggs					
11	being in one basket, presumably whatever the national					
12	contract is, it's for a range of products.					
13	A. Yes.					
14	SIR BRIAN LANGSTAFF: Nationally negotiated.					
15	A. Yes.					
16	SIR BRIAN LANGSTAFF: And that shows cost advantage, does					
17	it, over negotiating per centre?					
18	A. Well, actually, the way to get the best price would be					
19	to go for a single product, but we don't want to do					
20	that for a variety of strategic reasons, which the					
21	Department of Health accept. And the Department of					
22	Health accept that there will be a financial price to					
23	i i					
24	1,5,5,5,					
25	apparently accepted by the Department of Health in					
	161					

1	Α.	The first time we had a proper national contract was				
2		with recombinant for all.				
3	SIR	REAN LANGSTAFF: I see.				
4	Α.	And we established a national contract, and that led				
5		to surprising discounts which had practical				
6		implications because it enabled us to start some				
7		patients earlier than we would otherwise have been				
8		able to. Obviously, we would have preferred to have				
9		started them all at once.				
10		But then there was this threat to the continued				
11		funding and one of the responses with the Department				
12		of Health to this funding threat was to introduce				
13		a system of central contracting for all products, for				
14		all the patients. So that was the first truly				
15		national contract for everybody. And so the				
16		Commercial Directorate became involved. Deloitte				
17		offered a device with the very first round, and our				
18		objective was to reduce the cost and, therefore, make				
19		the continued supply of recombinant Factor VIII for				
20		our patients more secure, and to maintain freedom of				
21		prescription to have as many suppliers as we could so				
22		that the market would not be vulnerable to				
23		interruptions of supply. Bearing in mind that, as				
24		recently as 2002, we'd had a major interruption in the				
25		supply of recombinant when Bayer stopped supplying.				

1	relation to a wide range of products and is not			
2	peculiar to our particular area.			
3	And the strategic reasons are: you don't want			
4	to be dependent on a single manufacturer, because if			
5	you become too dependent, apart from anything else,			
6	what's to stop them turning round and putting their			
7	price up at a later stage? You know, when the next			
8	contract comes round			
9	SIR BRIAN LANGSTAFF: They're a monopoly supplier, and you			
10	might imagine they might do that. So I can understand			
11	that.			
12	A. Well			
13	SIR BRIAN LANGSTAFF: Can I			
14	A. They also			
15	SIR BRIAN LANGSTAFF: Can I ask you just to if you know			
16	anything about, you may well not, because it's before			
17	you were centrally involved in much of this world, but			
18	in the 1970s, ending in about '79, I think it was,			
19	there was central contracting for commercial product.			
20	Then it ceased. And plainly, at some stage, national			
21	contracting, as you've described it, started up again.			
22	Roughly when was that? Do you remember?			
23	A. When did it really start or when			
24	SIR BRIAN LANGSTAFF: When did national contracting start			
25	to replace the system of buying by centre.			

to replace the system of buying by centre.

# 162

1	You know, so it's a very recent memory, a very
2	real problem. And the Department of Health accepted
3	that even though Deloitte said, well, you'll get the
4	biggest saving if you just go for two suppliers, as
5	group of clinicians, and with the department's
6	support, we said no, we don't want to go down that
7	route. And we organised it in such a way as to make
8	the suppliers behave in a commercial, competitive way.
9	And we told them that if they didn't offer us a good
10	price, we wouldn't buy their product. Whether that
11	was a real threat or not, it had the desired effect,
12	and with each round, the price has reduced to an
13	extent that, frankly, exceeded our expectations.
14	Right at the outset of this, Deloitte told us
15	that 90% of the cost of a drug is usually profit.
16	I was staggered by that. But when we did a survey, we
17	discovered that the unit price for a given Factor VIII
18	product varied by over 50% from one Haemophilia Centre
19	to another. So even if we just paid the average
20	price, we would have saved something like £15 million.
21	So clearly, there was enormous scope. I mean, the
22	manufacturers always said, "Oh this is an expensive
23	product to manufacture. We're not making much money
24	on it," and so on. And we had no way of knowing what
25	profit they were making. But it has been very useful

(41) Pages 161 - 164

1		because during the period during which we've had this,			
2		we have wanted to improve the intensity of treatment			
3	and the quality of treatment for the patients.				
4		And when we started that contract, the average			
5		amount that patients with severe haemophilia were			
6		using was 120,000 units of Factor VIII a year. And it			
7		has increased now to an average of about 300,000. But			
8		the total cost of that has actually been reduced.			
9		We're now paying the unit prices that are similar			
10		to those that pertained in the 1970s.			
11	SIR BRIAN LANGSTAFF:   see				
12		Now, just to give me a sense of how it is			
13		organised as between yourself and the purchasing unit,			
14		is this a question of the price being negotiated and			
15		you then ask for supplies from the supplier, or is			
16		there a central warehouse, as it were, either			
17		a notional warehouse or an actual one, which has			
18	a store of the product which you are, between you,				
19		obliged to take? Do you ask the			
20	Α.	There's still some degree of prescribing freedom, and			
21		different centres prescribe different products. The			
22		price is set nationally by the national contract.			
23		Each round is organised between UKHCDO and what was,			
24		past, the Purchasing and Supplies Agency, but which is			
25		now CMU, the Central Medicines Unit. It's actually			

# 165

1	more normal, and has less effect in the way in which
2	the product is dealt with.
3	Now people are a little bit suspicious about
4	pegylated products because the polyethylene glycol is
5	excreted from the body more slowly, and although there
6	is no positive evidence, we would prefer it to
7	disappear more quickly. We don't know what the
8	long-term consequences of having polyethylene glycol
9	in your body might be.
10	There are many other pegylated drugs available,
11	but perhaps none given for an entire lifetime. And
12	it's that sort of consideration. So some clinicians
13	have said, "Well, I know there's not much evidence but
14	I would prefer not to take that risk", and they choose
15	to use other products. In my own centre, we have four
16	consultants with an interest in haemophilia and we
17	reach these decisions by consensus.
18	SIR BRIAN LANGSTAFF: Well, thank you very much. Those
19	are all the questions I have to ask.
20	Ms Richards?
21	MS RICHARDS: Professor Hay, do you have anything further
22	that you wish to say?
23	THE WITNESS: No, I don't.
24	SIR BRIAN LANGSTAFF: Well, it remains for me to say,
25	professor, that we're very grateful to you for giving

1		the same bunch of people. Coincidentally, they're
2		just down the road from me.
3		And they organise the contract. We help them
4		with data, to facilitate that process. Their actual
5		tenders are assessed in a multi-disciplinary way by
6		a group. Very often the products are scored, partly
7		by price, partly by safety, ease of use, things like
8		that.
9		We have even involved patients and haemophilia
10		nurses in some of those assessments.
11	SIR	<b>BRIAN LANGSTAFF:</b> And when it comes to the question of
12		safety, what are the sort of considerations that would
13		make one product, nowadays, safer than another?
14	Α.	Well, the difficulty with safety and we haven't
15		always used it in every evaluation recently, because
16		we found that it didn't discriminate between the
17		products. In the past it most certainly would have
18		done, but it's difficult to demonstrate an increment
19		in safety between the various products, and some of it
20		comes down to opinion.
21		For example, some of the extended half life
22		products are pegylated, that is to say, a molecule of
23		polyethylene glycol is attached, and that's the method
24		that they used to extend its half life. Others have
25		bits of immunoglobulin attached, which is considered

### 166

1	up your time to be here virtually. I know that you						
2	would have preferred, as we would have preferred, you						
2	to be here in person, but it's rather a long way for						
4	you to come, I think. It would have been, anyway,						
4 5	a long way for you to come. Those listening should						
6							
	know that you were prepared to do that and, of course,						
7	you have further evidence to give us in due course.						
8	We'll have to decide whether we actually ask you to						
9	give that orally or not at a later time.						
10	But your willingness to engage is noted, and we						
11	thank you very much for that. It's given us, this						
12	evidence, at any rate, an insight into what we hadn't						
13	had much evidence, as yet, orally given to us: the						
14	period in which vCJD was a real threat and how it was						
15	handled. It may still be a real threat, but at least						
16	we know how it was handled in the 1990s, and what it						
17	was like from your evidence to become a Haemophilia						
18	Centre Director of a large centre at the end of the						
19	1980s, coming into the 1990s, with all the challenges						
20	and the testing for hepatitis C that took place.						
21	That's very valuable evidence for us to have.						
22	Thank you very much indeed for coming, or being here,						
23	rather, I should say, virtually to give it.						
24	THE WITNESS: Thank you. I hope that it's been helpful.						
25	SIR BRIAN LANGSTAFF: Well, I'm sure in many ways, it will						
	168 (42) Pages 165 - 168						

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	<ul> <li>have been.</li> <li>MS RICHARDS: Sir, that completes the evidence, obviously, for today and for this week. We're not sitting next week, and we resume remotely, so far as witnesses and core participants are concerned, the following week on the Tuesday, which I think is 17 November.</li> <li>SIR BRIAN LANGSTAFF: Yes, it is.</li> <li>MS RICHARDS: Yes, it is.</li> <li>SIR BRIAN LANGSTAFF: So those listening around the country should know that we will start on the 17th. We are then hearing evidence from?</li> <li>MS RICHARDS: We have evidence from three witnesses that week, Dr Al-Ismail, Dr Mitchell, and Dr Giangrande.</li> <li>SIR BRIAN LANGSTAFF: Thank you. So we start at ten o'clock on Tuesday, 17th November. Thank you very much.</li> <li>(5.05 pm)</li> <li>(The hearing adjourned until Tuesday, 17th November at 10.00 am)</li> </ul>	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	INDEX ARLES RICHARD MORRIS HAY	2 154
	169		170	

(43) Pages 169 - 170

	<b>'92 [1]</b> 50/2	1960 [1] 106/17	58/17 60/4 69/13	151/1	Α
MS RICHARDS: [30]	<b>'94 [1]</b> 45/5	1960s [1] 107/3	70/14 70/24	30,000 [3] 50/8 62/4	A4 [1] 38/20
2/3 45/8 45/14 45/20	'at [5] 7/7 7/15 28/9	<b>1967 [1]</b> 107/5	2001 [4] 17/19 33/4	65/10	
	28/11 33/5	1968 [2] 56/16 59/2	35/8 57/15	300,000 [1] 165/7	A4 single-spaced [1]
86/20 88/1 95/22	'at-risk' [2] 7/7 7/15	<b>1969 [2]</b> 102/3 110/13	2002 [3] 57/16 143/19		38/20
106/14 108/13 108/15	'de [1] 34/3	<b>1970 [1]</b> 107/23	163/24	82/16	abandon [2] 71/22
109/14 110/14 111/21	'de-notified' [1] 34/3	<b>1970s [5]</b> 77/9 124/23	2003 [4] 4/13 4/17	33.6 years [1] 103/6	81/17
112/3 112/23 115/2	'risk' [1] 7/6	132/16 162/18 165/10	5/22 71/11	<b>398 [1]</b> 83/19	abandoned [1] 50/13
117/3 118/18 118/22	'unknown' [3] 83/16	<b>1973 [1]</b> 108/1	<b>2004 [13]</b> 4/12 5/19		abandonment [1]
126/10 131/6 131/20	83/17 83/19	<b>1974 [2]</b> 102/3 108/24	5/23 6/6 6/7 11/17	4	71/25
132/3 132/10 141/24				4.00 [1] 132/8	ability [1] 69/14
154/7 167/21 169/2	0	<b>1976-80 [1]</b> 102/14	11/22 14/12 17/11		able [13] 2/9 3/5 13/9
169/8 169/12		<b>1977 [1]</b> 102/4	19/18 20/20 21/6	<b>40 [2]</b> 68/4 105/5	17/3 17/4 28/4 48/24
SIR BRIAN	0.5 [1] 128/7	<b>1980 [3]</b> 17/18 33/9	25/13	<b>42.3 [1]</b> 109/18	81/2 85/19 99/10
LANGSTAFF: [83]	0.75 [1] 127/20	105/24	2005 [3] 35/14 35/21	42.3 years [1] 103/6	128/10 131/21 163/8
1/3 1/5 45/11 45/15	0005123 [1] 137/20	1980s [5] 123/23	149/1	46.7 years [1] 103/4	ABMU0000053 [1]
45/19 86/18 87/15	<b>004 [1</b> ] 143/15	125/17 126/12 135/13	2006 [5] 19/18 19/21	48.3 years [1] 103/4	19/19
87/25 95/12 95/17	006 [1] 20/25	168/19	20/16 28/10 152/7	5	abnormal [9] 22/25
106/13 106/15 107/4	<b>007 [1]</b> 21/11	1983 [6] 101/20	2007 [4] 20/24 21/2		23/14 24/18 74/4
107/9 107/18 107/20	<b>008 [1]</b> 73/6	102/23 104/7 104/10	21/14 40/17	<b>5,000 [1]</b> 84/2	89/13 96/5 98/6 98/7
	066 [1] 71/9	111/13 119/7	2009 [9] 22/19 22/22	5.05 [1] 169/17	
108/4 108/11 108/14		1984 [4] 101/20	24/8 26/4 26/10 27/10	<b>50 [5]</b> 125/17 126/12	98/12
109/6 109/13 110/11	1	102/23 104/7 122/1	30/10 38/24 44/17	129/21 142/23 164/18	about [140] 2/23 7/9
110/19 111/19 112/1	1,300 [1] 43/2	1984/85 [1] 97/9	2010 [4] 30/12 31/17	50,000 [1] 37/10	8/20 9/16 12/2 12/9
112/4 113/1 114/7	1,500 [1] 50/12	<b>1985 [3]</b> 124/13	81/23 82/22	500 [1] 65/17	13/3 13/5 15/23 16/22
114/16 115/1 117/2	1,523 [1] 83/17	155/23 157/24	2010/11 [1] 82/13	50s [1] 107/1	16/22 18/15 18/18
117/4 118/20 126/9	1.02 [1] 87/22	1985-1998 [1] 43/1	2011 [1] 73/12	5th July 2011 [1]	18/19 21/16 27/7 27/9
126/11 129/1 129/3	10 [8] 71/21 72/9	<b>1987 [3]</b> 46/18 56/2	2013 [4] 32/16 32/20	73/12	28/6 28/21 35/4 38/4
129/19 130/12 130/20	76/14 81/2 81/8	77/7	38/4 63/22		39/24 40/10 40/12
130/24 131/3 131/9	110/19 114/1 137/7	<b>1988 [3]</b> 20/4 124/9	2014 [1] 82/16	6	41/15 41/20 44/12
132/1 132/4 132/9	<b>10.00 [1]</b> 1/2	124/18	2017 [1] 64/17	62 [2] 109/21 113/10	44/20 45/8 45/21
141/4 141/16 141/19	10.00 am [1] 169/19	<b>1989 [1]</b> 33/9	2019 [1] 70/14	64 [1] 113/11	45/23 46/19 48/3 48/6
154/10 154/16 154/21	100 [1] 74/24	<b>1990 [2]</b> 33/4 35/8	<b>2020 [5]</b> 1/1 35/7 96/4	69 [1] 103/5	52/23 53/2 55/15
154/24 155/13 155/19	<b>11 [3]</b> 13/6 25/6 82/13	<b>1990s [2]</b> 168/16	98/14 99/14	69.1 [1] 105/1	56/10 56/14 57/7
156/1 156/4 156/12	11 years [1] 23/9	168/19	<b>21 [1]</b> 83/20	69.1 years [1] 103/15	58/12 58/21 59/18
156/21 156/25 157/3	<b>11.16 [1]</b> 45/16	<b>1991 [3]</b> 46/4 79/19	21 September [1]		59/22 60/5 60/17 61/8
158/20 158/23 159/2	<b>11.46 [1]</b> 45/18	79/21	14/9	7	63/10 66/3 68/4 70/23
159/16 159/22 160/20	117 [1] 4/14	<b>1992 [3]</b> 77/7 84/14	22nd June 2007 [1]	7 September 2004 [3]	71/8 71/14 72/22
161/6 161/14 161/16	<b>12 [2]</b> 45/13 45/15	99/15	40/17	11/17 11/22 17/11	73/11 75/9 79/2 79/17
162/9 162/13 162/15	<b>120,000 [1]</b> 165/6	<b>1993 [1]</b> 99/15	<b>24 [1]</b> 160/3	7,567 [1] 83/17	79/22 79/25 80/2
162/24 163/3 165/11	13th October 2005 [1]	<b>1994 [2]</b> 99/15 137/23		70s [1] 23/8	81/17 84/2 85/17 87/4
166/11 167/18 167/24	35/14		32/20	72.8 [1] 103/16	88/14 91/19 92/4 93/6
168/25 169/7 169/9	14 November 2006 [1]	<b>1995 [1]</b> 101/5	25 [4] 75/1 109/22	<b>74 [1]</b> 103/6	93/7 98/3 99/22 99/23
169/14	19/21	<b>1998 [8]</b> 2/17 43/1	<b>23 [4]</b> 75/1 109/22 113/11 113/12	7th September [2]	100/9 101/17 101/23
THE WITNESS: [2]	15 million [1] 164/20	59/7 59/7 60/8 60/9		10/23 11/3	105/5 105/9 105/14
167/23 168/24	<b>15 years [1]</b> 107/1	60/11 72/10	25 per cent [1] 113/11	7th September 2004	106/17 106/21 106/23
P	<b>16 [3]</b> 26/10 109/21	<b>1999 [1]</b> 57/7	<b>25 years [2]</b> 106/19 110/3	[1] 6/7	106/24 106/25 107/22
	113/8		<b>251 [3]</b> 66/10 68/19		107/25 110/19 113/5
'60s [1] 105/6	16 February 2009 [1]	2	70/1	8	113/10 115/4 115/8
<b>'66 [1]</b> 107/8	26/4	2 o'clock [1] 86/19	<b>26 [1]</b> 103/24	80 [1] 102/14	122/8 122/11 123/7
'69 [2] 106/11 110/5	16 January 2007 [1]	<b>2,000 [1]</b> 50/12	26 per cent [1] 109/22	80.3 [1] 88/7	123/10 124/9 125/15
'70s [1] 105/6	21/14	<b>2.10 [1]</b> 87/24	<b>27 patients [1]</b> 160/2	<b>85 [1]</b> 97/9	127/19 128/7 129/4
'74 [2] 106/11 110/5	16th May 2005 [1]	<b>20 [3]</b> 50/11 106/19		88 [1] 43/1	129/21 130/10 130/23
'79 [1] 162/18	35/21	151/1	27.5 per cent [1] 83/21	<b>89 [1]</b> 103/24	133/12 133/25 134/22
'80s [6] 100/11 119/6	<b>17 [1]</b> 118/9	20 patients [1] 32/15		8Y [3] 3/4 3/23 3/23	135/14 136/17 137/7
119/9 127/21 128/6	17 November [1]	20 September [1]	28,000 [1] 79/24		138/2 138/6 138/7
129/24	169/6	20 September [1] 14/7	<b>29 [2]</b> 103/24 113/5	9	138/15 138/22 139/3
'83 [1] 120/24	17th [1] 169/10		29 years [1] 106/24	9 September [2] 14/2	140/8 143/1 143/20
'85 [1] 158/15	17th November [2]	20 September 2004	3	14/25	144/13 144/22 149/20
'87 [3] 47/9 50/1	169/15 169/18	[1] 14/12		9,090 [1] 83/15	149/21 150/21 156/5
120/24		20 years [2] 108/20	3 centres [1] 3/3	<b>90 [2]</b> 125/25 164/15	156/6 157/4 157/5
'90s [3] 23/2 59/15	<b>18,000 [2]</b> 83/10 84/1	143/25	<b>3.25 [1]</b> 132/6	<b>93 [1]</b> 48/17	157/10 157/20 157/25
100/11	<b>188 [1]</b> 2/16	<b>20,000 [1]</b> 50/8	<b>30 [1]</b> 68/4	<b>95 [1]</b> 158/11	158/16 159/1 159/10
	1930s [1] 106/20	<b>2000 [7]</b> 6/9 12/20	30 years [2] 10/6	[-] 100/11	
	l		L	14	1) MS RICHARDS: - about

(44) MS RICHARDS: - about

Α	activity [3] 46/17	60/13 64/2 64/6 69/7	aggravation [1]	134/14 134/17	146/15 146/19
	149/9 149/10	76/25 136/8	150/16	allowing [1] 88/15	amount [6] 9/9 16/16
about [7] 160/25 161/7 161/7 162/16	acts [1] 140/1	advised [3] 22/14	aggregate [1] 55/6	alluding [1] 3/21	51/21 156/14 157/2
162/18 165/7 167/3	actual [2] 165/17	135/21 137/9	AGM [2] 54/17 70/9	almost [5] 31/3 96/15	165/5
	166/4	advising [1] 7/9	ago [4] 38/3 143/25	99/12 100/10 110/4	amounts [6] 3/2 3/4
about 1960 [1] 106/17	actually [34] 5/2	Advisory [7] 9/15	151/1 157/23	along [9] 14/21 50/24	45/1 55/25 107/13
above [2] 83/9 101/8	22/13 25/15 37/11	58/6 64/14 64/17 65/2	agree [7] 41/24 62/22	53/7 61/2 68/16 73/13	109/6
absence [3] 111/19	66/4 81/14 84/24 92/7	152/12 152/18	107/12 108/3 110/20	88/10 133/16 147/9	ample [1] 131/22
130/8 136/4	92/13 92/19 105/13	affect [4] 13/2 16/23	112/6 113/15	Alpha [1] 160/2	an advantage [1] 72/1
absolute [1] 54/10	106/8 112/17 112/22	31/12 80/17	agreed [4] 33/17	Alphanate [1] 121/25	analysis [6] 17/23
absolutely [6] 14/17	115/15 117/24 122/12	affected [16] 8/21	49/19 81/3 157/18	already [15] 4/7 12/12	
14/17 66/18 90/12	122/15 126/3 128/14	12/24 12/25 15/22	agreement [1] 43/20	13/11 26/23 41/12	127/16 156/9
109/10 155/2	130/5 142/20 143/9	16/17 17/1 18/19 19/8	AIDS [7] 97/14 104/8	48/2 68/14 72/24	angry [1] 157/17
accelerated [1] 26/12	147/13 148/3 148/6	27/4 27/4 32/12 32/13	135/15 158/2 158/4	76/19 87/13 98/23	ankle [1] 136/22
accept [7] 85/14 90/7	148/7 152/4 158/8	32/14 103/15 108/19	158/6 158/18	110/12 144/16 149/15	annual [14] 35/13
151/8 151/19 154/3	160/22 161/18 165/8	136/13	aim [1] 136/8	149/20	50/6 50/10 50/23 51/5
161/21 161/22	165/25 168/8	affects [1] 117/25	al [2] 128/9 169/13	also [53] 2/13 3/23	52/14 66/15 66/19
acceptable [2] 62/18	actuarial [2] 104/20	affirmation [1] 49/11	Alder [1] 44/10	3/24 9/12 9/13 10/3	67/23 84/24 132/20
157/24	110/21	affirmative [2] 64/24	alert [1] 14/19	10/21 11/22 19/15	132/20 134/1 134/9
accepted [3] 66/2	acute [1] 158/10	68/17	alerted [1] 29/3	20/21 25/3 25/5 27/25	annualised [1] 55/19
161/25 164/2	adapt [1] 15/17	affording [1] 96/17	alive [2] 21/21 43/12	29/9 30/10 36/23 39/8	annually [1] 77/12
access [2] 66/25	add [3] 47/21 82/1	Afro [1] 128/20	all [118] 1/8 2/14 3/1	43/25 46/10 46/25	anonymised [3] 55/5
71/14	85/13	Afro-Caribbean [1]	3/3 3/25 4/7 8/13 8/15	50/9 51/6 63/3 63/12	61/6 95/20
accessing [1] 143/21	added [1] 78/25	128/20	8/17 10/1 11/9 14/14	64/21 66/14 68/10	anonymous [4] 95/4
accompany [1] 11/19	addition [1] 87/12	after [28] 2/9 9/25	15/3 15/11 15/14	69/1 74/4 74/25 77/8	95/12 95/15 95/18
accompanying [2]	additional [6] 7/10	10/4 14/5 21/22 23/10	15/21 16/12 16/16	78/9 79/5 81/24 83/16	anonymously [1] 95/9
11/2 92/18	7/19 37/20 43/9 84/2	25/6 31/7 44/10 50/19	16/21 16/22 17/13	101/6 103/19 109/19	another [14] 24/24
according [2] 53/18	120/21	51/9 53/9 75/23 76/1	18/14 19/3 19/5 21/15	112/9 114/19 117/25	45/9 62/11 90/22 91/4
110/4	address [3] 56/22	77/7 79/18 81/17	22/22 23/22 25/11	119/21 121/13 125/12	125/5 143/17 145/1
account [2] 39/5	59/16 119/11	92/13 97/8 105/24	27/25 29/3 31/17	128/3 128/9 128/11	145/6 145/13 145/22
75/24	addressed [4] 2/18	124/9 124/13 130/15	31/18 31/25 32/1 32/6	133/11 135/9 137/5	148/15 164/19 166/13
accounted [1] 29/21	13/12 87/7 149/2	146/6 148/4 153/2	35/2 36/9 37/15 38/17	151/5 160/13 162/14	answer [11] 17/6
accounts [1] 56/7	addresses [1] 42/9	153/6 160/15	38/22 39/13 47/5	alternative [1] 73/2	17/20 47/8 82/8 97/1
accurate [5] 30/6 30/7	addressing [2] 60/21	afternoon [2] 2/21	49/10 49/17 54/1 56/7	although [17] 27/1	108/7 117/5 121/18
58/22 58/23 84/11	69/8	87/14	57/4 57/18 61/25	47/2 60/8 70/21 71/2	129/20 135/25 147/3
accurately [1] 128/11	adequate [5] 61/15	again [25] 1/7 11/3	63/16 65/9 65/14	72/6 72/18 88/22	answered [1] 62/25
accusation [2] 134/8	61/20 64/1 64/23 76/4	11/13 11/23 14/12	68/18 72/11 74/21	96/19 109/1 120/12	answering [1] 121/21
135/10	adequately [2] 20/22	17/10 19/2 21/1 24/7	77/5 77/8 77/18 79/9	129/10 129/14 136/5	anti [1] 17/18
accused [1] 148/17	29/6	25/12 50/15 71/1	79/10 80/20 80/23	138/16 157/23 167/5	anti-thrombin [1]
achieve [1] 149/23	adjacent [1] 105/15	92/20 93/22 100/7	81/23 82/5 83/8 84/13	always [18] 19/10	17/18
acquired [1] 27/24	adjourned [1] 169/18	104/5 110/16 128/2	85/6 85/22 87/20	27/23 38/15 54/6 54/6	
acquisition [2] 27/17	Adjournment [1]	128/24 134/18 148/16	89/24 93/12 93/14	54/7 60/9 70/22 85/24	95/6 95/8 158/5
27/22	87/23	149/21 152/10 153/13	95/20 97/17 100/20	94/24 115/14 118/5	anticipate [3] 71/4
across [6] 49/8 57/18	administering [1]	162/21	101/15 102/1 102/7	119/15 136/1 152/23	71/5 82/6
59/8 61/18 89/21	132/14	against [9] 80/4 119/9		159/8 164/22 166/15	anticipated [1] 89/25
117/9	administration [2]	140/4 141/10 142/15	108/5 112/21 113/21	am [10] 1/2 12/9	anxieties [1] 3/12
act [12] 44/12 58/19	8/24 124/5	142/24 143/2 147/8	118/12 120/7 122/1	31/25 45/16 45/18	any [72] 4/8 8/21 9/11
59/7 60/8 60/8 60/11	admitted [1] 38/12	149/25	122/19 124/9 124/22	60/18 114/13 138/2	9/11 17/17 22/15
64/21 66/11 72/10	adopted [2] 61/18	age [12] 66/20 66/22	125/5 125/13 129/12	138/13 169/19	23/16 23/20 24/1
72/17 88/23 150/4	73/19	102/19 102/24 104/15	130/9 131/3 131/5	amateurish [1] 56/4	24/17 33/23 34/12
acted [1] 5/10	Adults [1] 3/1	104/20 108/18 108/20	132/2 134/6 134/16	amazing [1] 159/6	36/17 38/17 38/21
action [10] 7/12 14/2	advance [3] 40/7	109/15 109/17 110/3	137/15 139/18 141/2	ambitious [2] 81/20	42/11 47/10 47/11
33/16 43/11 141/17	95/10 98/21	110/15	148/5 148/13 152/5	81/20	55/25 56/3 57/2 60/24
146/22 147/7 148/22	advanced [1] 111/2	age-appropriate [2]	153/12 153/20 154/3	ambivalence [1]	61/1 61/5 65/4 70/10
150/11 152/2	advantage [3] 72/1	66/20 66/22	155/8 159/24 160/9	153/10	70/13 71/6 72/12
actions [3] 15/9 22/15	118/2 161/16	Agency [7] 11/15 21/9		America [1] 128/1	81/18 81/24 85/1
23/21	advent [3] 73/25 75/5	32/20 33/1 39/15	163/13 163/14 167/19	America [1] 120/1 American [6] 3/19 4/4	87/12 88/18 93/2
active [1] 83/20	155/17	124/4 165/24	168/19	30/20 30/22 31/24	
actively [1] 60/5				147/6	95/24 99/15 100/1
activists [2] 149/16	adverse [4] 123/18	Agency's [1] 22/22	allow [3] 45/12 88/10 114/23		100/3 100/17 110/1
149/25	123/18 123/21 123/25	agent [4] 116/16	allowed [7] 18/7 50/5	amongst [9] 8/25	111/12 118/3 121/2
activities [1] 136/15	advice [10] 22/3 46/13 46/23 60/2	116/19 116/20 116/24	123/2 134/12 134/13	10/17 11/15 50/20	121/20 122/5 122/17
	40/13 40/23 00/2	ages [1] 103/3	120/2 104/12 104/13	52/22 57/11 58/11	123/6 123/12 123/12
L	I	L			

(45) about... - any

	-	-			
Α	111/7 134/3 140/25	arguably [1] 71/24	assessing [1] 17/2	43/10 44/14 74/12	basically [3] 3/9 63/4
	141/23 157/7 161/24	argued [1] 74/10	assessment [15] 6/11	97/10 120/5 130/16	147/3
any [22] 123/22	approached [3] 52/21	argument [1] 55/10	6/14 6/21 6/23 7/5	146/9 147/11 167/10	basis [23] 10/18 38/2
124/15 130/10 131/17 132/19 134/8 134/9	79/16 127/1	arise [1] 90/8	10/13 17/8 17/22 33/1	average [13] 103/3	53/17 56/4 66/8 69/14
	approaches [1]	arisen [2] 58/9 77/14	38/17 38/21 39/7 39/9	104/15 104/20 105/5	75/16 88/4 93/8 96/11
134/20 135/22 136/8	100/22	arises [2] 62/10 115/7	39/17 102/22	108/18 109/17 110/3	99/17 99/19 101/10
138/4 138/8 138/20	appropriate [9] 40/7	arising [4] 40/10 71/7	assessments [4]	110/15 127/19 154/22	131/1 132/15 132/20
140/17 140/23 148/18	66/20 66/22 67/1 67/4	129/20 154/10	27/16 38/22 129/8	164/19 165/4 165/7	133/21 135/3 142/15
149/7 154/21 156/21	93/1 93/4 145/6	arm [2] 50/20 51/6	166/10	avoid [5] 90/23 118/1	142/16 143/12 152/23
159/2 160/6 168/12	151/22	Armour [1] 161/1	assiduously [1] 37/22		156/12
anybody [4] 37/7	approval [8] 40/21	around [13] 36/25	assistance [1] 75/8	avoided [1] 154/5	basket [1] 161/11
49/13 64/8 72/14	67/9 70/6 121/3	53/3 60/4 70/23 75/20	Associate [1] 48/15	await [1] 82/10	batch [19] 6/19 6/22
anyone [1] 96/19	122/18 122/21 122/24	80/6 96/21 106/16	associated [2] 12/6	awaited [1] 27/16	9/10 9/12 11/4 18/3
anything [16] 22/14	123/1	110/3 110/17 118/11	21/7	aware [16] 13/20	18/4 23/4 23/10 24/14
27/2 44/25 49/8 63/10	approve [1] 121/9	139/24 169/9	assume [2] 90/5	13/21 14/13 29/17	25/7 28/4 144/3 144/7
79/17 94/3 112/24	approximately [2]	arrange [3] 86/4 96/6	98/12	47/13 61/22 88/23	144/9 144/17 145/13
130/23 142/6 145/18	83/10 109/22	146/10	assumed [3] 61/3	93/15 123/6 132/13	155/5 155/7
150/19 159/7 162/5	April [2] 27/10 31/17	arranged [1] 122/22	88/9 112/20	132/23 133/8 133/8	batches [21] 4/20
162/16 167/21	April 2009 [1] 27/10	arrangements [2]	assumption [1] 38/15	136/14 159/3 159/23	7/14 7/17 7/19 7/23
anyway [14] 44/25	April 2010 [1] 31/17	24/1 49/5	assumptions [8] 6/23	awareness [3] 99/1	7/25 8/9 11/9 17/1
48/25 61/13 82/5	Archer [1] 151/6	array [1] 90/4	7/7 38/19 38/23 38/25	99/3 138/3	19/16 20/2 20/13
115/22 116/11 117/6	are [123] 1/9 1/12	arrived [1] 157/16	39/6 79/17 79/21	away [5] 29/3 63/8	20/18 20/19 22/8 23/3
119/14 126/7 128/24	1/13 1/14 1/17 1/18	as [198]	asymptomatic [1]	93/3 105/1 125/6	28/13 123/14 124/7
135/7 148/21 160/21	3/1 7/2 7/6 7/7 9/8	aside [1] 99/17	22/24	awkwardly [1] 136/21	144/12 155/3
168/4	10/6 12/12 12/17	ask [40] 1/20 35/4	attach [1] 115/11		battery [1] 96/6
anywhere [1] 143/3	14/11 15/6 15/9 15/22	40/10 40/12 41/15	attached [4] 3/7 4/1	В	Bayer [1] 163/25
apart [6] 26/20 53/13	19/10 19/12 23/21	45/20 56/10 63/9	166/23 166/25	back [51] 9/6 19/22	be [265]
145/17 158/17 159/7	27/16 28/15 32/1	70/22 71/8 73/10	attack [1] 158/10	35/19 38/13 45/13	bearing [3] 128/11
162/5	32/11 34/2 35/8 36/5	75/21 81/11 82/6	attempt [5] 141/24	52/9 56/15 59/1 59/23	158/4 163/23
apologies [1] 129/5	36/15 41/4 49/14	82/12 86/3 86/3 87/3	141/25 142/3 148/22	76/9 76/13 78/18	became [17] 9/5
apparent [2] 80/22	49/18 50/5 54/8 54/9	88/8 89/1 93/21 94/8	149/7	80/25 81/21 81/24	38/24 45/4 46/18
144/5	54/9 54/22 55/4 56/7	101/17 112/25 115/3	attempted [1] 85/4	82/2 82/16 82/21	46/25 48/1 50/9 50/19
apparently [1] 161/25	56/24 62/15 64/14	117/2 126/9 131/5	attempting [1] 56/22	82/22 84/20 85/15	57/7 63/24 79/1 80/22
appear [1] 43/16	65/10 66/21 67/15	131/13 138/7 149/21	attempts [2] 57/20	90/21 93/21 94/8	97/9 100/25 130/15
appearance [1] 44/20	68/15 69/5 70/10	156/5 156/8 156/12	149/22	94/23 97/9 98/16	159/3 163/16
appeared [1] 52/10	72/21 73/8 73/17	161/6 162/15 165/15	attend [2] 134/12	103/11 105/6 106/14	because [157] 1/7
appears [3] 41/10	74/13 77/11 78/8 78/9	165/19 167/19 168/8	134/13	113/17 117/4 117/16	1/20 3/6 3/22 4/2 4/6
58/16 146/14	80/18 80/20 84/5	asked [24] 18/2 20/16	attendants [1] 140/22	125/17 126/11 126/21	5/25 8/19 8/24 9/14
applicant [2] 49/15	84/10 85/8 85/10	23/21 25/18 32/7	attention [4] 15/4	129/19 129/23 130/9	9/16 9/22 12/14 13/12
49/18	85/11 87/8 87/9 87/9	59/22 63/5 65/8 65/21	108/15 113/2 123/16	130/13 130/18 132/2	15/17 16/3 16/12
application [5] 66/8	88/3 89/8 92/3 92/4	78/21 79/9 79/10	attenuated [1] 124/19	146/8 148/15 149/7	18/10 20/7 21/5 22/7
69/8 74/12 76/4 145/3		85/21 85/25 89/19	attribute [1] 17/3	150/20 152/17 153/20	26/12 26/20 31/5 32/2
applications [8] 68/21	94/13 95/7 97/4 97/19	92/15 101/7 101/19	attributed [1] 129/8	155/23 156/22 161/1	36/10 37/19 37/25
68/25 69/5 70/1 73/8	98/11 98/23 99/21	102/5 115/3 116/1	atypical [1] 25/3	background [5] 18/14	38/8 38/17 39/1 39/23
73/20 74/3 75/18	99/22 101/15 109/21	123/10 149/20 152/11	audience [1] 1/10	64/20 139/19 140/16	40/13 44/9 47/9 49/8
applied [2] 31/1 31/3	111/2 116/7 116/8	asking [10] 32/1	audit [2] 48/23 112/17	151/3	49/12 50/13 50/22
applies [1] 94/19	118/4 119/19 120/21	78/13 79/23 80/1	audited [3] 48/22	bad [2] 98/25 135/7	52/13 55/17 55/22
apply [5] 25/24 49/14	124/1 125/22 125/23	87/14 87/16 111/19	48/25 56/8	bag [1] 130/4	57/8 57/17 61/11 62/7
49/22 68/20 88/23	127/23 128/8 128/13	138/25 143/1 147/3	August [1] 70/2	bags [1] 130/2	62/14 62/22 62/25
applying [3] 74/17	128/15 132/21 134/17	asks [4] 18/1 89/19	August 3 [1] 70/2	balance [4] 74/17	65/13 67/18 68/10
74/18 115/19	137/5 138/18 138/19	91/16 145/25	authored [1] 111/23	74/21 74/25 75/15	68/10 68/11 71/2 72/3
appointed [1] 28/10	143/20 144/17 144/20	aspects [2] 68/11	authority [9] 52/5	balloon [1] 37/9	73/24 74/5 75/24 79/1
appointment [3]	145/25 146/1 147/25	137/5	56/18 57/18 57/22	bank [1] 123/5	79/11 79/25 80/3 80/5
34/23 60/19 89/3	149/15 149/17 150/4	aspirin [1] 90/24	62/13 62/19 64/12	Bar [1] 140/8	80/17 81/18 84/15
appointments [1]	154/7 155/10 162/3	assertion [2] 142/15	64/14 65/1	Barker [2] 137/22	85/7 85/11 85/14
appreciate [6] 91/23	165/9 165/18 166/5	142/16	authors [1] 122/13	138/24	88/10 89/5 89/8 90/12
100/21 111/6 120/25	166/6 166/12 166/22	assertions [1] 97/13	autopsy [3] 24/17	BART0000924 [1]	92/13 92/22 93/22
131/12 153/14	167/3 167/10 167/19	assess [6] 7/19 57/12	44/18 44/18	35/12	94/8 96/22 97/2 97/8
approach [13] 9/16	169/5 169/11	99/10 120/19 126/24	availability [2] 110/1	based [8] 6/14 34/8	97/14 98/5 98/24 99/2
64/25 73/7 73/18	area [5] 105/12 116/5	128/10	110/2	60/15 64/15 99/9	101/2 101/3 103/19
78/12 100/23 105/21	121/12 134/15 162/2	assessed [2] 38/12	available [14] 37/19	127/17 127/21 128/5	105/8 105/20 106/1
10/12 100/20 100/21	aren't [1] 131/11	166/5	40/8 41/7 42/2 43/8	basic [2] 56/22 121/6	106/16 107/6 110/12

(46) any... - because

Declared.         Sign 1333 1336         2223 223 223 468 2215         Diref [1] 1501         Sign 1333 1449         Can 171 94 9           11023 1111         1334 1334 1440         7614 7617 757 834         Diref [1] 14212         D	В	112/11 113/4 117/23	15/16 17/14 19/11	Brian Colvin [1] 59/15	149/24 151/17 152/8	162/10 162/13 162/15
December 103         Time 11						
10.05         11.05 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
10.62         10.62         165/21 <th16 21<="" th="">         165/21</th16>		145/19 146/19 147/22				
10/3 10/3 10/3 10/3 10/3 10/3 10/3 10/3						
1180:1180/01180/0         1180/0		165/14 168/22	113/9 113/15 114/22	bringing [1] 142/2	164/18 165/22 166/5	141/11 144/23 144/25
19/17 19/18 1204         103/14         Deces [2] 14/34         Deces [2] 14/34         Derus [1] 4/34         Deces [2] 14/34         Cancel [2] 29/24         Cancel [2] 29/24 <t< td=""><td></td><td>belief [2] 96/11</td><td>137/8</td><td>Britain [1] 102/14</td><td>166/7 166/7 167/17</td><td>145/21 146/21</td></t<>		belief [2] 96/11	137/8	Britain [1] 102/14	166/7 166/7 167/17	145/21 146/21
12118         12218         12217         Deliver (2)         12337           12361         12362         1237		138/14			170/3 170/4	Canada [1] 124/18
125/16         125/16         125/12<					C	cancellations [1] 40/5
1282/113/1213/1213/12         0         0         14         0						
1357         1371         1392         1391         1407         1601         1392         1591         1492         1407         1601         1392         1591         1492         1407         1601         1392         1591         1492         1401         1402 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td></th<>						
1396         139133         13913         13913 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td></th<>						
140/17         140/17         140/17         140/17         140/17         140/17         160/17         140/17         160/17<						
14471 1487         14837         14837         14837         14837         14837         14837         14837         14837         14837         14837         14837         14837         1484         1561         1561         1561         1561         1561         1561         1561         1561         1561         1561         1562         1513         1601         1562         1513         1601         1562         1513         1601         1562         1513         1601         1512         1513         1601         1512         1562         1513         1601         1513         1614         161	140/17 140/21 143/23					
14/17         14/17         14/17         14/17         14/17         14/17         14/17         14/17         14/17         14/17         13/17         1         15/17         15/	144/11 145/17 146/3					
Hour 1902/2 1932         better [5]         101/4         886 888 88/2 88/12 88/15         500 156/16         101/3         carcinoma [1]         24/15           156/14         156/14         101/12         11/12/15         50/14	147/7 147/17 148/5					
13.220         13.26         130/25         51/13         139/25         153/4         carditi [2]         48/25         48/25           15/71         15/87         16/87         15/87         16/87         15/87         16/87         15/87         16/87         15/87         16/87         15/87         16/87         16/87         16/87	150/1 150/22 153/2					
13/13/130/2       130/2						
1996 Fold/1 E0/1         1997 Fold/2 Fol/1         125/18 126/1 126/12         141/20 1472/1 153/20         Called [4] 14/19         489 Åtr2.48/19           160/1 61/4 162/16 463/6         3/4 339 33/21 34/11         127/12 127/12         127/12 127/12         141/20 1472/1 153/20         Called [4] 14/19         489 Åtr2.48/19           165/1 667/1 667/6         3/8 38/16 55/15         127/15 127/11/2         127/15 127/11/2         155/18 155/20 155/23         48/23 133/1 136/10           1236 1236/17         155/18 155/20 156/23         155/18 155/20 156/23         155/18 155/20 156/23         48/23 133/1 136/10           1236 1236/17         156/18 165/17         board [1] 68/1         board [1] 68/17         board [1] 67/1         board [1] 67/1         came [7] 53/8 100/14         101/1           12022         166/13 165/18 165/18         153/16 134/2 (67/5         board [1] 67/1         board [1] 67/1         board [1] 67/1         board [1] 67/1         campaignes [1] 48/11         140/14 14/21 12/12         141/21 14/21         140/17 14/12/14         12/21 12/27 13/25         campaignes [1] 12/21 22/13 12/5         12/16 22/19 22/12/27         23/16 24/12 24/12 4/21         12/16 22/12 22/13 22/5         23/16 24/12 24/12/4         12/17 12/12/21 22/12/21         12/17 12/21 22/12/21         23/18 24						
Hours In Information         Sale 338         Sale 338<						
162/4       162/1       167/1 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
Hour 100/13 (107)       63/14 73/9 98/25       blue [1] 100/18       buk [1] 137/11       155/16       carrefully [2] 44/20         48/22 53/11 77/21       128/6 13/23 162/17       board [1] 46/14       burd [1] 16/1       burd [1] 16/1       burd [1] 16/1       burd [1] 137/11       tbord [1] 16/1         123/6 125/3 162/1       115/9 115/13 119/2       tbord [1] 46/14       burd [1] 16/1       burd [1] 16/1       burd [1] 16/1       burd [1] 16/1       carrefully [2] 47/14 49/10         120/22       tbord [1] 46/12       tbord [1] 46/12       bord [1] 17/14       burd [1] 17/14       tbord [1] 17/14       carrefully [2] 47/14 49/10       carrefully [2] 47/14 49/10       carrefully [2] 47/14 49/11       carrefully [2] 47/14 49/12       carrefully [2] 47/14 49/11       darrefully [2] 47/14 49/11       darre			128/16 128/19		calls [3] 72/15 154/14	
Decome [0]         2137         105/15 112/1 114/24         boadie [1]         66/7         bunch [1]         166/1         came [1]         53/8 100/18         101/1           123/6 125/5 162/5         125/6 163/13         15/9 115/13         119/24         boadie [1]         66/14         body [6]         19/25 15/36         82/23         120/22         147/9 148/15         came [1]         139/24         carred [1]         61/4         49/20         147/9 148/15         140/6 141/2         42/14         49/24         44/14         49/24         142/17         143/8 14/20         carred [1]         61/1         66/14         49/20         14/9         140/6 141/2         42/17         143/8 14/20         carred [1]         61/1         52/3 8/21         12/3         12/7         11/8 2/11         52/3 8/21         12/3         12/7         11/8 2/11         12/17         12/18 2/11/9         21/18 2/11/9         21/18 2/11/9         12/17         12/18 2/11/9         12/17         12/17 2/17         12/18 2/11         12/14         12/17         12/17         12/17         12/17 2/17         12/18 2/21         11/14         11/12         12/18         12/11         12/11         12/11         12/11         12/11         12/11         12/11         12/11         12/11         <		63/14 73/9 96/25				
1236 125/3 162/5       1139 115/12       body [6] 199/25 153/6       Dody [6] 199/25 153/6       147/9 148/14       Cambean [1] 12/20         168/17       165/16 143/3 156/14       body [6] 199/25 153/6       Dody [6] 199/25 153/6       Dody [6] 199/25 153/6       147/9 148/14       Cambean [1] 12/20       Cambean [1] 12/21		105/15 112/7 114/24	board [1] 56/7	bunch [1] 166/1	came [7] 53/6 100/18	101/1
168/17       126/0 (43/13 156/11 65/23 156/23 153/18 156/27 155/18 156/23 153/18 153/18 153/13 156/18 150/2 150/23 153/18 153/18 153/13 156/18 150/2 150/23 156/23 153/18 153/18 153/18 153/13 156/18 150/2 150/23 153/18 153		115/9 115/13 119/24	bodies [1] 46/14	burdensome [2]		Caribbean [1] 128/20
becomis [2]         47.6         169.73 169.74 179.74         Dubits [1] 67.71         Dubits [1] 67.71         Campaign [0] 19.27.27         Campaign [0] 19.27			body [6] 19/25 153/8	82/23 120/22		
120/22       100/16 100/19       100/19						
becoming [1]         46/27         beyond [2]         26/8 / 4/19 boil [3]         //11 4/12/2         100/20 13/4/3         14/2/17 (4/3/4 143/11 3/11 5/2 5/21 12/2 12/5           beeflurger [1]         27/17         8/53         but [214]         150/2         127 21/5 21/2 21/5           beeflurger [1]         27/17         8/53         but [214]         150/2         227/18 21/19 22/1 22/7           beeflurger [1]         118/2         119/20 119/21 13/48         book [1]         137/3         but [214]         149/23         23/19 24/10 29/10           63/6 68/3 75/4 77/6         bisses [1]         118/3         69/2 74/10 101/14         boy [117] 22/4 / 84/24         8/4 11/7 11/15 11/21         57/17 60/19 66/7           79/14 79/21 84/14         big [1] 55/3         169/26 11/1         160/14         169/27 11/1         12/14         12/14         12/14         12/14         12/14         13/16 30/14         39/18 69/14         39/18 69/14         12/17         13/16 30/14         13/16 30/14         13/16 31/16         13/16 31/16         13/16 31/16         13/16 31/16         13/16 31/16         13/16 31/16         13/16 31/16         13/16 31/16         13/16 31/16         13/16 31/16         13/16 31/16         13/16 31/16         13/16 31/16         13/16 31/16         13/16 31/16         13/16 31/16						
beefburger [1]         27/25         bits [9]         34/3         117/24         35/3         button [1]         67/2         campaigners [1]         27/25           before [31]         118/21         119/21         113/3         both [1]         137/3         button [1]         67/2         campaigners [1]         21/18 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
been [175]         Tols/ 1 is/12 Tis/13 book [1] 5/72         Dook [1] 5/73 buy [1] 6/72         Douk [1] 5/73 buy [1] 6/72         Douk [1] 6/72 can [96] 6/8 c/25 7/11 big [1] 5/23         Zin 2 z/12 Z/1 2/12 Z/13 Z/1 buy [1] 6/72           63/6 68/3 75/4 77/6 05/6 209 0/4 90/24 92/8 big [1] 5/23         big [1] 5/23         book [1] 5/72         buy [1] 6/72         can [96] 6/8 c/25 7/11         35/6 43/10 52/11           63/2 66/3 97/4 7/76         big [2] 5/23         109/21 017/13 123/1         buy [1] 6/72         can [96] 6/8 c/25 7/11         35/6 43/10 52/11           63/2 66/3 97/4 7/76         big [2] 5/23         109/21 017/13 123/1         buy [1] 6/72         can [96] 6/8 c/25 7/11         35/6 43/10 52/11           63/2 66/3 75/4 77/6         big [2] 5/15         big [2] 5/15         big [2] 11/23         109/21 017/13 123/1         buy [1] 16/22         buy [1] 16/21         buy [1] 16/20         can [96] 6/8 c/25 7/11         7/17 6/019 66/7           10/11 103/12 106/16         big [2] 11/12         11/23 12/11         11/12         11/12 149/1         11/12         11/12 149/1         11/12         11/12 149/1         11/12         12/14 10/11         12/12 12/1         12/14 12/14         11/12         12/14 12/14         12/14         12/14         12/14 12/14         12/14         12/14         12/14         12/14         12/14         12/14         12/14 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td></t<>						
before [31] 1/0 4/11         135/10         39/18 59/11 62/19         bying [1] 162/25         can [96] 6/9 6/25 7/11         35/6 43/10 55/11           40/9 46/19 80/5 60/9         66/3 75/4 77/6         69/2 74/10 101/14         by [117] 2/2 4/18 4/14         5/10 6/16 4/16 7/1 8/5         12/12 12/14 7/11/15 11/21         5/11 60/14         5/1	been [175]					
4409 4019 5005 375/4 77/6 9/14 79/21 84/14       biases [1] 118/3 big [1] 52/3       69/2 74/10 101/14 109/20 117/13 123/1       by [117] 2/2 4/18 4/24       8/4 117 11/15 11/21       57/17 60/19 66/7         79/14 79/21 84/14       big [1] 52/3       109/20 117/13 123/1       52/20 6/14 6/16 7/18       17/16 2/12 812/21 13/14       37/17 60/19 66/7         101/1 103/1 1102/1 12/2       57/17 60/19 66/7         1102/21 5/11 5/0/12 100	before [31] 1/6 4/11					
63/6 68/3 / 59/4 7//6       big [1] 52/3       109/20 117/13 123/1       5/20 6/14 6/16 7/1 9/5       12/8 12/11 12/14       72/12 73/3 74/1 93/16         79/14 79/21 84/14       big get [1] 52/3       109/20 117/13 123/1       5/20 6/14 6/16 7/1 9/5       12/8 12/11 12/14       72/12 73/3 74/1 93/16         109/20 117/13 123/1       109/20 117/13 123/1       12/15 12/25 13/5 14/8       13/10 14/1 14/24 15/2       12/14 12/24       13/10 14/1 14/24 15/2       12/14 12/24       13/10 14/1 14/24 15/2       12/14 12/24       13/10 14/1 14/24 15/2       12/14 12/24       13/10 14/1 14/24       13/12/22 13/14       13/10 14/1 14/24       13/12/22 13/14       13/10 14/1 14/24       13/12/22 13/14       13/12/22 13/14       13/10 14/1 14/24       13/12/22 13/14       13/14       13/16 13/13       13/10 14/1 14/21       13/12/22 13/14       13/16 13/13       13/12/21 12/14       13/16 13/13       13/16 13/13       13/16 13/13       13/16 13/13       13/16 13/13       13/16 13/13       13/16 13/13       13/16 13/13       13/16 13/13       13/16 13/13       13/16 13/13       13/16 13/13       13/16 13/13       13/16 13/13       13/16 13/13       13/16 13/13       13/16 13/14       13/17 11/16 13/14       13/17 11/16 13/14       13/17 11/16 13/14       13/17 11/16 13/14       13/13 13/14       13/16 13/14       13/16 13/12       13/16 13/12       13/11/16 13/12       13/16 13/12 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
(9)14 (9)22 84/14 86/20 90/4 90/24 92/8 101/1 103/12 106/16 109/25 110/2 110/9 112/24 122/16 122/17 123/2 126/15 144/19 102/3 106/1 106/10 123/2 106/14 109/25 110/2 110/9 112/24 122/16 122/17 123/2 126/15 144/19 105/3 106/1 106/10 107/8 110/4       142/24 149/12 149/19 160/14 101/1 103/12 106/16 11/25 17/22 13/5 13/5 14/8 11/23 12/8 12/18 11/16 19/24 22/12 105/3 106/1 106/10 13/25 17/12 25/19 107/4 110/4 114/2       142/24 149/12 149/19 11/23 12/8 12/18 11/16 19/24 22/12 11/16 19/24 22/12 11/16 19/24 22/12 11/16 19/24 22/12 107/4 110/4 114/12 11/25 15/12 12/17 107/4 110/4 114/12 105/3 106/1 106/10 13/25 17/12 25/19 107/4 110/4 114/12 105/3 106/1 106/10 13/25 17/12 25/19 107/4 110/4 114/2 103/2 12/25 107/14 10/4 114/2 11/2 12/2 12/2 107/15 83/13 85/25 95/3 113/5 85/25 95/3 113/5 100/10 117/10 117/10 117/10 117/10 117/10 117/10 117/10 117/10 117/10 117/10 117/10 117/10 117/10 117/10 117/10 117/10 117/10 113/2 113/10 43/13 43/18 100/18 41/5 42/15 42/16 42/20 47/17 42/16 42/20 47/17 42/17 40/14 43/17 42/17 40/14 43/17 43/14 43/17 43/14 43/17 43/14 43/17 43/14 43/17 43/14 43/17 43/14 43/17 43/14 43/17 44/22 43/14 41/2 43/16 43/18 43/18 43/17 43/17 43/14 43/17 43/14 43/17 44/14 43/17 43						
100/20 50/4 50/27       164/4       160/14       12/15 12/25 13/5 14/8       13/10 14/1 14/24 15/2       120/14 120/19 131/16         100/17 103/12 106/16       Bigg [11] 56/17 87/1       bottom [12] 11/16       14/18 15/2 17/23       15/4 15/10 17/8 17/10       13/25 13/14 14/18         101/25 110/2 110/9       11/25 12/25 13/5 14/19       105/3 106/1 106/10       13/25 17/12 25/19       24/9 24/9 28/20 31/17       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 34/20 11 22/21       13/1/16 14/2/19       13/1/16 14/2/19       13/1/16 14/2/19       13/1/16 14/2/19       13/1/16 14/2/19       13/1/16 14/2/19       13/1/16 14/2/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/12 24/3 24/7 25/19       23/13 24/12/2 24/12/2 24/12 24/12 24/12 24/12 24/12/2 24/12/2 24/					12/18 12/21 13/4 13/8	
109/25 110/2 110/9 112/24 122/16 122/17       Biggs [11] 50/17 67/17       bottom [12] 117/16       14/16 19/24 127/123       15/14 13/10 17/8 17/16       15/14 13/10 17/8 17/16       15/14 13/10 17/8 17/16       15/12 13/14 14/16         12/24 122/16 122/17       12/12 12/15 144/19       15/13 10/14 110/4 114/12       17/12 25/19       17/12 25/19       24/19 24/9 28/20 31/17       23/12 24/3 24/7 25/19       cases [16] 21/5 73/21         15/020 162/16       Biggs [11] 10/24       110/14 114/12       77/15 83/2 137/24       32/6 32/21 32/25       26/2 26/15 27/13       74/5 75/14 80/2 82/23         15/020 162/16       Biggs [11] 10/24       143/12 12/25       33/12 34/20 38/22       27/18 29/16 30/13       85/25 55/3 113/5         began [2] 59/15 59/16       bind [1] 148/4       bought [2] 56/20       38/24 40/5 44/8 44/17       31/16 32/19 32/25       113/10 117/10 117/11         36/25 38/11 38/14       binsp [4] 4/2/5       133/3       bouncing [1] 137/3       54/22 56/1 56/20       40/18 41/5 42/15       158/2         100/20       behafy [2] 76/12       20/6       bouncing [1] 137/3       54/22 56/1 56/20       40/18 41/5 42/15       158/2       13/10 117/10 117/11       13/9 31 42/12 142/17       caseworkers [1] 69/7       caseworkers [1] 69/7       caseworkers [1] 69/7       caseworkers [1] 60/7       case [1] 11/17/3 11/17 13/13 13/12       10/125 102/12 10/12 10/20 <t< td=""><td></td><td></td><td>160/14</td><td>12/15 12/25 13/5 14/8</td><td>13/10 14/1 14/24 15/2</td><td>120/14 120/19 131/16</td></t<>			160/14	12/15 12/25 13/5 14/8	13/10 14/1 14/24 15/2	120/14 120/19 131/16
112/24 122/16 122/17 123/2 125/15 144/19 150/20 162/16       87/17 104/18 104/19 107/4 110/4 114/12       11/25 12/12 12/18 13/25 17/12 22/19       11/19 24/92 42/92 42/92 12/12 24/9 24/9 28/20 31/17 23/12 24/3 24/7 24/17 24/17 24/7 24/7 24/7 24/7 24/7 24/7 24/7 24/		Biggs [11] 56/17 87/1	bottom [12] 11/16	14/18 15/2 17/23	15/4 15/10 17/8 17/10	135/2 138/14 141/8
123/2 125/15 144/19 150/20 162/16       105/10 10/10 113/25 17/12 25/19       24/9 28/9 28/20 31/17 25/17       25/15 24/1 29/19       Cases [16] 21/5 73/21         began [2] 59/15 59/16 beginning [5] 30/19       Bigs [1] 110/24       143/22 152/8       33/12 34/20 38/22       27/18 29/16 30/13       74/5 75/14 80/2 82/23         36/25 38/11 38/14       biopsy [4] 42/25       133/3       9/11 52/5 54/1 54/4       34/5 34/18 35/17       139/3 142/12 142/17         100/20       behalf [2] 76/12       13/10 43/13 43/18       bouncing [1] 137/3       54/22 56/15 6/20       40/18 41/5 42/15       133/10 117/10 117/10 117/11         behalf [2] 76/12       20/6       bouncing [1] 137/3       54/22 56/15 6/20       40/18 41/5 42/15       138/2       142/16 42/20 47/17       Cases workers [1] 64/15       caseworkers [1] 64/15       caste [1] 13/13       30/21 30/25 31/1       30/21 30/25 31/1       80/8 80/9 84/21 85/1       70/20 71/20 72/2       caste [1] 64/15       caste [1] 13/13       s0/21 30/25 31/18       80/18 80/18 80/18 63/19       70/20 71/20		87/17 104/18 104/19				
150/20 162/16       10/14 110/4 114/12       17/15 85/2 15/124       32/15 3/15 32/15 3/15 3/15 32/15 3/15 3/15 3/15 3/15 3/15 3	1					
began [2]         59/15 59/16         Biggs [1]         110/24         143/2         132/2         12/3/2         12/3/2         12/3/2         13/3/3 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td></t<>						
beginning [5] 30/19 36/25 38/11 38/14 100/20         bing [1] 42/2 bing [2] 2/25 bing [2] 76/12         bing [1] 42/2 133/3         bing [1] 137/3 43/10 43/18 43/18         bing [1] 137/3 bouncing [1] 137/3         54/22 56/1 56/20 54/1 52/5 44/15 44/16         31/16 32/19 32/23         113/10 11/1/10 11/1/11           behave [1] 164/8         Birmingham [2] 2/25 behaved [1] 151/25         bouncing [1] 137/14         54/22 56/1 56/20         40/18 44/16 42/17         caseworkers [1] 69/7           behaved [1] 151/25 behaved [1] 151/25         bit [1] 57/6 57/17         boxing [1] 137/14         73/7 73/19 76/11 78/7         63/18 63/18 63/19         caste [1] 64/15           102/15         boxing [1] 31/14         73/7 73/19 76/11 78/7         63/18 63/18 63/19         catch [1] 29/8         catch [1] 29/8           20/6         bit [1] 164/25         boxing [1] 32/23 106/21 140/13         BPL [13] 3/2 3/16 4/13         80/8 80/9 84/21 85/1         70/20 71/20 72/2         catch [1] 29/8           20/12 25/18         20/14 25/18         166/25         31/24 50/23 155/23         94/21 95/12 96/22         82/15 86/2 88/20         caught [2] 140/20           13/14 21/22 41/24 46/5 50/9         bits [1] 166/25         31/24 50/23 155/23         94/21 95/12 96/22         82/15 86/2 88/20         caught [2] 140/20           13/16 1316/16 136/22         birant [1] 95/24         birant [1] 95/24         10/14 111/23 112/19         10/25 1						
36/25 38/11 38/14 100/20       153/3       1						
100/20       behaf [2] 76/12       76/12       102/15       bound [2] 38/1 147/24       58/13 59/15 61/18       42/16 42/20 47/17       caseworkers [1] 69/7         102/15       behave [1] 164/8       behave [1] 151/25       bit [11] 57/6 57/17       boxing [1] 137/14       73/7 73/19 76/11 78/7       63/18 63/18 63/19       caste [1] 64/15       caste [1] 64/15         102/15       being [54] 7/1 12/9       92/23 106/21 140/13       140/14 148/17 150/19       4/17 5/1 11/6 30/19       86/24 87/11 87/16       63/18 63/18 63/19       catch [1] 29/8       catch [1] 29/8       catch [1] 29/8       catch [1] 13/13       categorised [1] 13/13	36/25 38/11 38/14					
benain [2]         76/12         20/6         box [2]         17/25         62/9         69/21         70/3         70/10         49/12         49/12         49/14         63/7         Castle [1]         64/15           behave [1]         164/8         bit [11]         57/6         57/17         92/23         106/21         140/13         137/14         73/7         73/19         76/11         78/7         63/18         63/18         63/19         70/20         71/20         72/2         63/18         63/18         63/19         70/20         71/20         72/2         73/19         70/10         49/12         49/13						
102/15       bit [11] 57/6 57/17       boxing [1] 137/14       73/7 73/19 76/11 78/7       63/18 63/18 63/19 70/20 71/20 72/2       catch [1] 29/8         behaved [1] 151/25       bit [11] 57/6 57/17       92/23 106/21 140/13       140/14 148/17 150/19       4/17 5/1 11/6 30/19       80/8 80/9 84/21 85/1       70/20 71/20 72/2       catch [1] 29/8         being [54] 7/1 12/9       140/14 148/17 150/19       154/10 160/13 167/3       30/21 30/25 31/1       86/24 87/11 87/16       72/16 73/22 74/7 75/9       categorised [1] 13/13         12/12 18/22 19/9       154/10 160/13 167/3       30/21 30/25 31/1       88/15 89/14 92/19       76/11 77/3 78/17       categorised [1] 140/20         19/24 20/16 25/18       bits [1] 166/25       bits [1] 160/2       131/24 50/23 155/23       94/21 95/12 96/22       82/15 86/2 88/20       150/22       caught [2] 140/20         58/13 58/13 59/22       blamed [1] 140/22       barant [1] 95/24       101/25 102/12 108/5       91/15 9/6 102/12       150/22       cause [7] 98/7 109/23         58/13 58/13 59/22       136/13 136/16 136/22       brant [1] 98/10       135/8 131/23 131/24       115/3 115/18 117/22       109/17 110/15 113/24       136/22 149/11       136/22 149/11         60/6 60/7 71/17 73/18       137/6 137/12       beeder [1] 98/10       131/8 131/23 131/24       133/9 139/14 141/2       124/12 126/4 126/6       136/22 149/11						
behave [1]       164/8       92/23 106/21 140/13       BPL [13]       3/2 3/16 4/13       80/8 80/9 84/21 85/1       70/20 71/20 72/2       catching [1]       60/1         behaved [1]       151/25       140/14 148/17 150/19       140/14 148/17 150/19       4/17 5/1 11/6 30/19       86/24 87/11 87/16       72/16 73/22 74/7 75/9       72/16 73/22 74/7 75/9       76/11 77/3 78/17       catching [1]       60/1         12/12 18/22 19/9       154/10 160/13 167/3       30/21 30/25 31/1       88/15 89/14 92/19       76/11 77/3 78/17       82/15 86/2 88/20       91/15 99/6 102/12       150/22       caught [2] 140/20       150/22         13/2 4 50/23 155/23       94/21 95/12 96/22       91/15 99/6 102/12       102/25 106/13 109/14       150/22       cauge [7] 98/7 109/23       150/22         11/2 41/24 44/5 50/9       136/13 136/16 136/22       brand [2] 72/19 147/6       115/3 115/18 117/22       109/17 110/15 113/24       113/2 113/16 136/16       136/22 149/11         136/13 136/16 136/22       137/6 137/12       break [9] 45/10 45/11       118/5 119/21 123/24       114/7 116/5 118/5       113/2 113/16 136/16       136/22 149/11       136/22 149/11       133/9 139/14 141/2       124/12 126/4 126/6       136/22 149/11       136/22 149/11       132/7       131/8 131/23 131/24       133/9 139/14 141/2       124/12 126/4 126/6       129/1 131/8 141/4       132/27						
being [54]       7/1 12/9       140/14 148/17 150/19       4/17 5/1 11/6 30/19       86/24 87/11 87/16       72/16 73/22 74/7 75/9       categorised [1] 13/13         12/12 18/22 19/9       154/10 160/13 167/3       30/21 30/25 31/1       88/15 89/14 92/19       76/11 77/3 78/17       categorised [1] 13/13         26/12 35/11 36/5 41/4       bits [1] 166/25       blamed [1] 140/22       brain [1] 24/19       101/25 102/12 108/5       91/15 99/6 102/12       150/22         58/13 58/13 59/22       blaced [6] 55/19       136/16 136/22       brand [2] 72/19 147/6       115/3 115/18 117/22       109/17 110/15 113/24       113/2 113/16 136/16 136/16         58/13 58/13 59/22       60/6 60/7 71/17 73/18       136/16 136/22       brack [9] 45/10 45/11       118/5 119/21 123/24       114/7 116/5 118/5       136/22 149/11         100/15 100/15 102/22       137/6 137/12       bleeder [1] 98/10       131/8 131/23 131/24       133/9 139/14 141/2       124/12 126/4 126/6       136/22 149/11         100/15 100/15 102/22       100/15 100/15 102/22       17/18 78/7 80/17       132/7       131/8 131/23 131/24       133/9 139/14 141/2       129/1 131/8 141/4       146/23 148/9 149/4       102/24 113/7 CJ4         104/8 105/17 111/5       108/22       8/18       170/4       146/24 148/22 149/22       153/23 154/16 157/9       102/24 113/7 CJ4						
being [34]       171 12/9       154/10 160/13 167/3       30/21 30/25 31/1       88/15 89/14 92/19       76/11 77/3 78/17       category [1] 7/13         12/12 18/22 19/9       19/24 20/16 25/18       bits [1] 166/25       31/24 50/23 155/23       94/21 95/12 96/22       82/15 86/2 88/20       150/21         26/12 35/11 36/5 41/4       bits [1] 78/22       brain [1] 24/19       101/25 102/12 108/5       91/15 99/6 102/12       150/22         blamds [1] 78/22       branch [1] 95/24       110/14 111/23 112/19       102/25 106/13 109/14       130/21 31/24       130/21 31/24         58/13 58/13 59/22       136/16 136/22       brand [2] 72/19 147/6       115/3 115/18 117/22       109/17 110/15 113/24       113/2 113/16 136/16         60/6 60/7 71/17 73/18       137/6 137/12       beeder [1] 98/10       brain [3] 59/15 154/9       133/9 139/14 141/2       124/12 126/4 126/6       102/24 113/7 150/15         100/15 100/15 102/22       104/8 105/17 111/5       137/8 78/17       132/7       141/24 141/25 143/5       129/1 131/8 141/4       102/24 113/7 150/15         104/8 105/17 111/5       115/3 115/18 17/7       146/24 148/22 149/22       153/23 154/16 157/9       CD4 [1] 89/7					72/16 73/22 74/7 75/9	
12/12       10/22       19/9       bits [1]       166/25       31/24       50/23       155/23       94/21       95/12       82/15       86/2       88/20       150/22         19/24       20/16       25/18       bits [1]       166/25       31/24       50/23       155/23       94/21       95/12       96/22       82/15       86/2       88/20       150/22         26/12       35/11       36/5       41/4       140/22       biams [1]       78/22       brain [1]       95/24       101/25       102/25       106/13       109/14       150/22       caught [2]       140/20       150/22         58/13       58/13       59/22       bleed [6]       55/19       brand [2]       72/19       147/6       115/3       115/18       117/22       109/17       110/15       113/24       113/2       113/2       113/2       113/2       113/2       113/2       113/2       113/2       113/2       113/2       113/2       113/2       113/2       113/2       113/2       113/2       113/2       126/25       100/14       129/1       126/25       102/24       126/2       102/20       102/24       113/2       113/2       113/2       113/2       13/2       126/25		154/10 160/13 167/3	30/21 30/25 31/1	88/15 89/14 92/19	76/11 77/3 78/17	
26/12 35/11 36/5 41/4       blamed [1] 140/22       brain [1] 24/19       101/25 102/12 108/5       91/15 93/6 102/12       150/22         26/12 35/11 36/5 41/4       blanks [1] 78/22       branch [1] 95/24       110/14 111/23 112/19       102/25 106/13 109/14       130/22       cause [7] 98/7 109/23         51/1 51/9 53/21 57/25       bleed [6] 55/19       136/13 136/16 136/22       brand [2] 72/19 147/6       115/3 115/18 117/22       109/17 110/15 113/24       113/2 113/16 136/16         58/13 58/13 59/22       60/6 60/7 71/17 73/18       136/13 136/16 136/22       break [9] 45/10 45/11       118/5 119/21 123/24       114/17 116/5 118/5       136/22 149/11         60/6 60/7 71/17 73/18       137/6 137/12       bleeder [1] 98/10       131/8 131/23 131/24       133/9 139/14 141/2       124/12 126/4 126/6       102/24 113/7 150/15         100/15 100/15 102/22       100/15 102/22       17/18 78/7 80/17       132/7       141/24 141/25 143/5       129/1 131/8 141/4       causing [1] 74/13         104/8 105/17 111/5       118/18       170/4       146/24 148/22 149/22       153/23 154/16 157/9       CD4 [1] 89/7			31/24 50/23 155/23	94/21 95/12 96/22		
41/22 41/24 46/5 50/9       blanks [1] 76/22       115/3 115/18 117/22       109/17 110/15 113/24       113/2 113/16 136/16       136/22 149/11       136/22 149/11       136/22 149/11       causes [4] 102/20       102/24 113/7 150/15       102/24 113/7 150/15       102/24 113/7 150/15       102/24 113/7 150/15       102/24 113/7 150/15       102/24 113/7 150/15       102/24 113/7 150/15       102/24 113/7 150/15       102/24 113/7 150/15       102/24 113/7 150/15       102/24 113/7 150/15       102/24 113/7 150/15       102/24 113/7 150/15       102/24 113/7 150/						
51/1 51/9 53/21 57/25       bleed [6] 55/19       brand [2] 72/19 147/6       115/3 115/18 117/22       109/17 110/15 113/24       113/2 113/16 136/16         58/13 58/13 59/22       136/13 136/16 136/22       136/13 136/16 136/22       break [9] 45/10 45/11       118/5 119/21 123/24       114/7 116/5 118/5       136/22 149/11         60/6 60/7 71/17 73/18       137/6 137/12       bleeder [1] 98/10       131/8 131/23 131/24       133/9 139/14 141/2       124/12 126/4 126/6       102/24 113/7 150/15         100/15 100/15 102/22       100/15 102/22       17/18 78/7 80/17       132/7       141/24 141/25 143/5       129/1 131/8 141/4       causing [1] 74/13         104/8 105/17 111/5       115/2 8/18       170/4       146/24 148/22 149/22       153/23 154/16 157/9       CD4 [1] 89/7						
58/13 58/13 59/22       1350/13 136/16 136/22       break [9] 45/10 45/11       118/5 119/21 123/24       114/7 116/5 116/5       136/22 149/11         60/6 60/7 71/17 73/18       137/6 137/12       45/17 86/18 87/17       125/25 130/14 132/18       118/16 119/21 124/2       causes [4] 102/20         100/15 100/15 102/22       100/15 100/15 102/22       137/8 78/7 80/17       132/7       141/2 141/25 143/5       129/1 131/8 141/4       causing [1] 74/13         104/8 105/17 111/5       105/17 111/5       bleeding [22] 8/18       170/4       146/24 148/22 149/22       153/23 154/16 157/9       CD4 [1] 89/7						
60/6 60/7 71/17 73/18       137/6 137/12       457/7 86/18 87/17       125/25 130/14 132/18       116/16 119/21 124/2       causes [4] 102/20         78/3 91/7 96/23 96/24       bleeder [1] 98/10       131/8 131/23 131/24       133/9 139/14 141/2       124/12 126/4 126/6       102/24 113/7 150/15         100/15 100/15 102/22       100/15 102/22       77/18 78/7 80/17       bleeding [22] 8/18       131/8 131/23 154/9       143/7 145/23 146/18       146/23 148/9 149/4       102/24 113/7 150/15         104/8 105/17 111/5       bleeding [22] 8/18       170/4       146/24 148/22 149/22       153/23 154/16 157/9       CD4 [1] 89/7						i
78/3 91/7 96/23 96/24 100/15 100/22 104/8 105/17 111/5       bleeder [1] 98/10 bleeders [4] 77/12 77/18 78/7 80/17 bleeding [22] 8/18       131/8 131/23 131/24 132/7       133/9 139/14 141/2 132/7       1224/12 126/4 126/6 129/1 131/8 141/4 146/23 148/9 149/4 146/24 148/22 149/22       102/24 113/7 150/15 causing [1] 74/13 caution [1] 103/17 CD4 [1] 89/7						
100/15 102/22       77/18 78/7 80/17       Brian [3] 59/15 154/9       143/7 145/23 146/18       146/23 148/9 149/4       caution [1] 103/17         104/8 105/17 111/5       bleeding [22] 8/18       170/4       146/24 148/22 149/22       153/23 154/16 157/9       CD4 [1] 89/7	78/3 91/7 96/23 96/24					
104/8 105/17 111/5         bleeding [22]         8/18         170/4         146/24 148/22 149/22         153/23 154/16 157/9         CD4 [1]         89/7						
	104/8 105/17 111/5					

(47) because ... - CD4

C	certainly [17] 14/10	chased [1] 96/20	53/10 64/25 65/11	137/4 153/10 161/1	comparable [3] 103/5
cease [1] 86/20	16/11 24/11 24/22	chasing [1] 19/12	67/18 72/17 95/21	168/4 168/5	114/10 114/21
	93/1 97/2 100/2	chat [1] 138/1	103/17 127/13 129/17	comes [5] 90/17	compare [5] 104/15
ceased [1] 162/20	104/11 124/17 135/18	cheap [2] 3/23 146/24		153/4 162/8 166/11	104/17 105/13 110/22
cell [1] 128/22	136/14 138/18 140/3	check [8] 20/16 32/7	164/21	166/20	120/8
cellular [1] 22/2	142/23 150/13 152/22	41/5 87/5 90/20 90/22	climate [1] 59/1	coming [5] 50/24	compared [3] 56/4
cent [3] 83/21 109/22	166/17	102/1 102/20	clinic [1] 148/10	58/19 72/2 168/19	103/16 109/7
113/11	certificate [2] 74/2	checked [1] 32/2	clinical [8] 11/14	168/22	
central [5] 66/16	76/6	chief [3] 73/13 73/14	21/21 121/7 121/17	comment [2] 129/21	comparing [3] 105/7 114/8 118/7
162/19 163/13 165/16					
165/25	Certificates [1] 41/2	152/6	121/24 144/6 144/8	131/4	comparison [5] 96/24
centrally [4] 10/11	certification [3] 63/24	child [1] 153/24	146/1	commercial [9] 2/24	104/21 105/15 112/5
11/23 18/24 162/17	64/10 67/18	children [3] 15/15	clinically [3] 26/25	54/25 107/24 126/2	118/3
centre [64] 4/19 5/13	cetera [2] 15/14 144/4		34/21 116/9	134/16 154/18 162/19	comparisons [1]
8/6 15/3 15/10 19/7	chair [13] 15/1 15/2	Children's [2] 2/25	clinician [4] 117/15	163/16 164/8	118/4
19/25 20/15 22/23	19/24 21/14 28/19	122/10	117/15 118/25 119/1	commercially [1]	compensated [1]
28/9 28/23 30/1 30/2	32/21 49/1 49/5 49/7	choice [5] 18/22	clinicians [8] 11/19	160/6	139/13
	49/11 49/13 73/13	18/23 18/25 19/1	39/19 100/21 118/11	commissioned [1]	compensation [5]
31/19 33/19 33/20	152/9	117/14	119/9 157/8 164/5	84/21	138/13 139/17 140/6
33/21 34/9 34/11	Chair's [1] 118/18	choose [2] 18/7	167/12	Commissioner [3]	140/24 141/7
34/21 42/1 44/5 45/7	chaired [2] 59/15	167/14	closely [2] 57/14 66/3	60/14 60/15 62/12	competitive [1] 164/8
46/3 47/1 48/23 56/17	132/18	chose [1] 117/15	closer [1] 19/20	Commissioner was	complainants [1]
57/10 57/11 74/6	chairman [6] 49/2	chosen [1] 6/24	closest [1] 140/21	<b>[1]</b> 60/15	140/3
77/25 77/25 79/12	49/24 58/2 59/10	chronic [3] 75/1	clotting [6] 23/3 56/18		complaint [2] 140/8
79/14 83/12 85/16	142/19 142/20	130/11 158/12	56/19 74/22 90/21	53/15 53/16	150/12
85/20 86/1 86/11	challenges [1] 168/19	chronic viraemia [1]	137/5	committee [21] 6/17	complaints [2] 142/14
98/16 103/21 111/4		158/12			143/1
111/8 122/23 133/6	chance [2] 44/24		cloud [1] 136/18	9/15 43/24 58/6 59/12	
139/25 143/6 143/7	139/4	chronically [1] 74/4	CMU [1] 165/25	62/14 62/20 67/8 68/2	
143/13 144/15 144/16	change [13] 4/4 22/3	chronological [1]	co [2] 111/23 122/13	68/3 68/6 70/1 121/8	66/1 131/8 149/11
145/5 145/7 145/23	22/14 23/19 25/20	115/5	co-authored [1]	121/11 121/14 122/17	completed [1] 17/13
149/15 149/18 150/2	38/5 38/7 60/3 64/21	circles [1] 96/21	111/23	122/25 123/23 152/11	completely [7] 40/9
155/1 161/17 162/25	64/25 101/16 114/17	circular [2] 48/11	co-authors [1] 122/13		44/19 80/7 81/12
	114/19	140/12	code [1] 66/23	Committee's [2] 2/20	123/3 137/20 140/4
164/18 167/15 168/18	114/19   changed [13] 8/10	140/12 circulating [1] 30/20	code [1] 66/23 coded [1] 128/20	44/1	123/3 137/20 140/4 completeness [1]
164/18 167/15 168/18 168/18	changed [13] 8/10				
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25	changed [13] 8/10	circulating [1] 30/20	coded [1] 128/20 coffee [1] 45/13	44/1	completeness [1] 82/11
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1	changed [13] 8/10 12/23 35/1 39/6 39/8	circulating [1] 30/20 circulation [1] 148/2	coded [1] 128/20	44/1 committees [2] 6/16	completeness [1] 82/11 completes [1] 169/2
164/18 167/15 168/18 168/18 <b>centres [77]</b> 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14	<b>changed [13]</b> 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1	44/1 committees [2] 6/16 122/20 common [5] 50/20	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19
164/18 167/15 168/18 168/18 <b>centres [77]</b> 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8	<b>changed [13]</b> 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5	circulating [1] 30/20 circulation [1] 148/2 circumstance [1]	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15	completeness [1] 82/11 completes [1] 169/2
164/18 167/15 168/18 168/18 <b>centres [77]</b> 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3	<b>changed [13]</b> 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 <b>changer [1]</b> 5/25	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 circumstances [3] 25/25 26/8 90/9	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changes [1] 114/16	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 circumstances [3] 25/25 26/8 90/9 CJD [13] 2/19 6/8	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changes [1] 114/16 changing [1] 119/2	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 circumstances [3] 25/25 26/8 90/9 CJD [13] 2/19 6/8 10/12 10/21 12/1	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4]
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changes [1] 114/16 changing [1] 119/2 chaos [1] 149/11	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 circumstances [3] 25/25 26/8 90/9 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23
164/18 167/15 168/18 168/18 <b>centres [77]</b> 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changes [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 circumstances [3] 25/25 26/8 90/9 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changes [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 circumstances [3] 25/25 26/8 90/9 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changes [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1]	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 circumstances [3] 25/25 26/8 90/9 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1]
164/18 167/15 168/18 168/18 <b>centres [77]</b> 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7 46/16 47/18 47/20	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changes [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 circumstances [3] 25/25 26/8 90/9 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2]	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7 46/16 47/18 47/20 47/21 47/22 47/25	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changes [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 circumstances [3] 25/25 26/8 90/9 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7 46/16 47/18 47/20 47/21 47/22 47/25 48/1 48/3 48/4 48/8	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changes [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 circumstances [3] 25/25 26/8 90/9 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3]	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7 46/16 47/18 47/20 47/21 47/22 47/25 48/1 48/3 48/4 48/8 48/14 48/14 48/15 48/15 48/19 48/19	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changes [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 circumstances [3] 25/25 26/8 90/9 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7 46/16 47/18 47/20 47/21 47/22 47/25 48/1 48/3 48/4 48/8 48/14 48/14 48/15 48/15 48/19 48/19 56/15 62/4 62/4 66/25	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 5/25 changer [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5	circulating [1] 30/20 circulation [1] 148/2 circumstances [1] 120/6 circumstances [3] 25/25 26/8 90/9 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 claiming [2] 95/19 142/3	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2]	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7 46/16 47/18 47/20 47/21 47/22 47/25 48/1 48/3 48/4 48/8 48/14 48/14 48/15 48/15 48/19 48/19 56/15 62/4 62/4 66/25 77/17 78/8 78/13	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 5/25 changing [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 claims [1] 142/2 claims [1] 142/3 class [4] 141/17	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collection [2] 46/11	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7 46/16 47/18 47/20 47/21 47/22 47/25 48/1 48/3 48/4 48/8 48/14 48/14 48/15 48/15 48/19 48/19 56/15 62/4 62/4 66/25 77/17 78/8 78/13 78/13 78/20 79/9	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 claims [1] 142/2 claiss [4] 141/17 146/22 147/7 148/22	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [2] 46/11 58/18	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7 46/16 47/18 47/20 47/21 47/22 47/25 48/1 48/3 48/4 48/8 48/14 48/14 48/15 48/15 48/19 48/19 56/15 62/4 62/4 66/25 77/17 78/8 78/13 78/13 78/20 79/9 79/10 80/2 80/5 80/7	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 5/25 changer [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 claims [1] 142/2 claims [1] 142/2 claiss [4] 141/17 146/22 147/7 148/22 classical [2] 116/5	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [2] 46/11 58/18 collective [1] 152/13	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17 120/1 147/6
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7 46/16 47/18 47/20 47/21 47/22 47/25 48/1 48/3 48/4 48/8 48/14 48/14 48/15 48/15 48/19 48/19 56/15 62/4 62/4 66/25 77/17 78/8 78/13 78/13 78/20 79/9 79/10 80/2 80/5 80/7 81/13 82/22 84/15	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 5/25 changer [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 claims [1] 142/2 claims [1] 142/2 claiss [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collection [2] 46/11 58/18	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7 46/16 47/18 47/20 47/21 47/22 47/25 48/1 48/3 48/4 48/8 48/14 48/14 48/15 48/15 48/19 48/19 56/15 62/4 62/4 66/25 77/17 78/8 78/13 78/13 78/20 79/9 79/10 80/2 80/5 80/7 81/13 82/22 84/15 85/2 85/4 85/21 85/25	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 5/25 changing [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 claims [1] 142/2 claims [1] 142/2 claiss [4] 141/17 146/22 147/7 148/22 classical [2] 116/5	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [2] 46/11 58/18 collective [1] 152/13	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17 120/1 147/6
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7 46/16 47/18 47/20 47/21 47/22 47/25 48/1 48/3 48/4 48/8 48/14 48/14 48/15 48/15 48/19 48/19 56/15 62/4 62/4 66/25 77/17 78/8 78/13 78/13 78/20 79/9 79/10 80/2 80/5 80/7 81/13 82/22 84/15 85/2 85/4 85/21 85/25 86/8 102/15 111/2	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 5/25 changer [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 claims [1] 142/2 claims [1] 142/2 claiss [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [2] 46/11 58/18 collective [1] 152/13 collectively [1] 142/7	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2 54/12 54/15 54/23	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17 120/1 147/6 concentrates [4]
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7 46/16 47/18 47/20 47/21 47/22 47/25 48/1 48/3 48/4 48/8 48/14 48/14 48/15 48/15 48/19 48/19 56/15 62/4 62/4 66/25 77/17 78/8 78/13 78/13 78/20 79/9 79/10 80/2 80/5 80/7 81/13 82/22 84/15 85/2 85/4 85/21 85/25 86/8 102/15 111/2 112/21 122/23 134/23	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 5/25 changer [1] 14/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25 36/2 141/13 141/15	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 Circumstances [3] 25/25 26/8 90/9 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 claiming [1] 142/2 claiming [2] 95/19 142/3 class [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15 cleaned [2] 36/16 36/23	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 42/17 S8/18 collective [1] 152/13 collective [1] 142/7 College [1] 47/24	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2 54/12 54/15 54/23 55/1 56/2 56/8 133/24	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17 120/1 147/6 concentrates [4] 17/18 83/13 107/22 109/2
164/18         167/15         168/18           168/18         168/18           centres         [77]         2/14         2/25           3/3         3/9         3/14         3/22         4/1           5/18         13/18         14/14         14/22         2/24         1           5/18         13/18         14/14         14/22         20/21         28/8         29/19         29/20         30/3         31/3           31/18         31/25         32/3         32/7         32/8         32/11         34/17           34/22         36/5         37/21         37/24         39/20         43/4         44/7           46/16         47/18         47/20         47/21         47/22         47/25           48/1         48/3         48/4         48/8         48/14         48/15           48/15         48/19         48/19         56/15         62/4         66/25         77/17         78/8         78/13           78/13         78/20         79/9         79/10         80/2         80/5         80/7           81/13         82/22         84/15         85/2         85/2         85/2         85/2         86/8	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 14/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25 36/2 141/13 141/15 170/2 Charles Hay [1] 36/2	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 claims [1] 142/2 claims [1] 142/2 claiss [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15 cleaned [2] 36/16 36/23 cleaning [1] 36/18	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collection [2] 46/11 58/18 collective [1] 152/13 collective [1] 152/13 collective [1] 47/24 coloured [1] 112/19 column [1] 102/18	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2 54/12 54/15 54/23 55/1 56/2 56/8 133/24 134/5 156/7	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17 120/1 147/6 concentrates [4] 17/18 83/13 107/22 109/2
164/18 167/15 168/18 168/18 centres [77] 2/14 2/25 3/3 3/9 3/14 3/22 4/1 5/18 13/18 14/14 14/22 20/21 28/8 29/19 29/20 30/3 31/3 31/18 31/25 32/3 32/7 32/8 32/11 34/17 34/22 36/5 37/21 37/24 39/20 43/4 44/7 46/16 47/18 47/20 47/21 47/22 47/25 48/1 48/3 48/4 48/8 48/14 48/14 48/15 48/15 48/19 48/19 56/15 62/4 62/4 66/25 77/17 78/8 78/13 78/13 78/20 79/9 79/10 80/2 80/5 80/7 81/13 82/22 84/15 85/2 85/4 85/21 85/25 86/8 102/15 111/2 112/21 122/23 134/23 144/11 149/13 165/21 cerebral [1] 103/23	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 14/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25 36/2 141/13 141/15 170/2 Charles Hay [1] 36/2 Charlie [3] 56/20	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 clarify [2] 95/19 142/3 class [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15 cleaned [2] 36/16 36/23 cleaning [1] 36/18 clear [6] 36/4 38/24	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 152/13 collective [1] 152/13 collective [1] 142/7 College [1] 47/24 coloured [1] 112/19 column [1] 102/18 Colvin [1] 59/15	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2 54/12 54/15 54/23 55/1 56/2 56/8 133/24 134/5 156/7 Companies House [1] 56/8	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17 120/1 147/6 concentrates [4] 17/18 83/13 107/22 109/2 concept [3] 47/24 47/25 48/18
164/18         167/15         168/18           168/18         168/18           centres         [77]         2/14         2/25           3/3         3/9         3/14         3/22         4/1           5/18         13/18         14/14         14/22         2/24         1           5/18         13/18         14/14         14/22         2/24         1           5/18         13/18         14/14         14/22         2/24         1         3           29/19         29/20         30/3         31/3         3         31/18         14/25         32/3         32/7           32/8         32/11         34/17         34/22         36/5         37/21         37/24         39/20         43/4         44/7           46/16         47/18         47/20         47/21         47/22         47/25         48/1         48/14         48/15         48/14         48/14         48/15           48/14         48/14         48/15         48/19         48/19         56/15         62/4         66/25         7/7/17         7/8/8         78/13         78/13         78/13         78/13         78/13         78/13         78/12         45/25 <td>changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 5/25 changer [1] 14/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25 36/2 141/13 141/15 170/2 Charles Hay [1] 36/2 Charlie [3] 56/20 105/16 110/25</td> <td>circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 clarify [2] 95/19 142/3 class [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15 cleaned [2] 36/16 36/23 cleaning [1] 36/18 clear [6] 36/4 38/24 65/11 65/20 115/14</td> <td>coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 152/13 collective [1] 152/13 collective [1] 152/13 collective [1] 47/24 coloured [1] 112/19 column [1] 102/18 Colvin [1] 59/15 come [21] 49/8 55/3</td> <td>44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2 54/12 54/15 54/23 55/1 56/2 56/8 133/24 134/5 156/7 Companies House [1] 56/8 company [12] 51/3</td> <td>completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17 120/1 147/6 concentrates [4] 17/18 83/13 107/22 109/2 concept [3] 47/24 47/25 48/18 concern [4] 39/24</td>	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 5/25 changer [1] 14/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25 36/2 141/13 141/15 170/2 Charles Hay [1] 36/2 Charlie [3] 56/20 105/16 110/25	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 clarify [2] 95/19 142/3 class [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15 cleaned [2] 36/16 36/23 cleaning [1] 36/18 clear [6] 36/4 38/24 65/11 65/20 115/14	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 152/13 collective [1] 152/13 collective [1] 152/13 collective [1] 47/24 coloured [1] 112/19 column [1] 102/18 Colvin [1] 59/15 come [21] 49/8 55/3	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2 54/12 54/15 54/23 55/1 56/2 56/8 133/24 134/5 156/7 Companies House [1] 56/8 company [12] 51/3	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17 120/1 147/6 concentrates [4] 17/18 83/13 107/22 109/2 concept [3] 47/24 47/25 48/18 concern [4] 39/24
164/18         167/15         168/18           168/18         168/18           centres         [77]         2/14         2/25           3/3         3/9         3/14         3/22         4/1           5/18         13/18         14/14         14/22         2/21         28/8           29/19         29/20         30/3         31/3         31/18         31/25         32/3         32/17           32/8         32/11         34/17         34/22         36/5         37/21           37/24         39/20         43/4         44/7         46/16         47/18         47/20           47/21         47/22         47/25         48/1         48/14         48/15           48/14         48/14         48/15         48/14         48/15           48/15         48/19         46/15         66/25         7/7/17         78/8         78/13           78/13         78/20         79/9         79/10         80/2         80/5         80/7           81/13         82/22         84/15         85/2         85/2         85/2         85/25         86/8         102/15         111/2           112/21         12/23         134	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 5/25 changer [1] 14/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25 36/2 141/13 141/15 170/2 Charles Hay [1] 36/2 Charlie [3] 56/20 105/16 110/25 Charlie Rizza [1]	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 clarify [2] 95/19 142/3 class [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15 cleaned [2] 36/16 36/23 cleaning [1] 36/18 clear [6] 36/4 38/24 65/11 65/20 115/14 138/20	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collective [1] 152/13 collective [1] 152/13 collective [1] 142/7 College [1] 47/24 coloured [1] 112/19 column [1] 102/18 Colvin [1] 59/15 come [21] 49/8 55/3 60/9 68/16 82/9 86/1	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2 54/12 54/15 54/23 55/1 56/2 56/8 133/24 134/5 156/7 Companies House [1] 56/8 company [12] 51/3 54/19 55/12 55/13	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17 120/1 147/6 concentrates [4] 17/18 83/13 107/22 109/2 concept [3] 47/24 47/25 48/18 concern [4] 39/24 41/20 73/18 74/16
164/18         167/15         168/18           168/18         168/18           centres         [77]         2/14         2/25           3/3         3/9         3/14         3/22         4/1           5/18         13/18         14/14         14/22         2/21         28/8           29/19         29/20         30/3         31/3         31/18         31/25         32/3         31/17           3/2/8         32/11         34/17         34/22         36/5         37/21           37/24         39/20         43/4         44/7         46/16         47/18         47/20           47/21         47/22         47/25         48/1         48/14         48/14         48/15           48/14         48/14         48/15         48/14         48/19         56/15         62/4         66/25         77/17         78/8         78/13         78/13         78/13         78/13         78/13         78/13         78/13         78/13         78/13         78/13         78/14         5/28         86/8         102/15         111/2         112/21         12/21         12/22         314/23         14/11         149/13         165/21         cerebral <td< td=""><td>changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 5/25 changer [1] 14/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25 36/2 141/13 141/15 170/2 Charles Hay [1] 36/2 Charlie [3] 56/20 105/16 110/25 Charlie Rizza [1] 56/20</td><td>circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 clarify [2] 95/19 142/3 class [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15 cleaned [2] 36/16 36/23 cleaning [1] 36/18 clear [6] 36/4 38/24 65/11 65/20 115/14 138/20 clear-cut [1] 115/14</td><td>coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collective [1] 152/13 collective [1] 152/13 collective [1] 172/13 collective [1] 172/13 column [1] 102/18 Colvin [1] 59/15 come [21] 49/8 55/3 60/9 68/16 82/9 86/1 86/13 93/8 94/8 98/16</td><td>44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2 54/12 54/15 54/23 55/1 56/2 56/8 133/24 134/5 156/7 Companies House [1] 56/8 company [12] 51/3 54/19 55/12 55/13 56/6 101/9 134/1</td><td>completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17 120/1 147/6 concentrates [4] 17/18 83/13 107/22 109/2 concept [3] 47/24 47/25 48/18 concern [4] 39/24 41/20 73/18 74/16 concerned [6] 6/20</td></td<>	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 5/25 changer [1] 14/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25 36/2 141/13 141/15 170/2 Charles Hay [1] 36/2 Charlie [3] 56/20 105/16 110/25 Charlie Rizza [1] 56/20	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 clarify [2] 95/19 142/3 class [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15 cleaned [2] 36/16 36/23 cleaning [1] 36/18 clear [6] 36/4 38/24 65/11 65/20 115/14 138/20 clear-cut [1] 115/14	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collective [1] 152/13 collective [1] 152/13 collective [1] 172/13 collective [1] 172/13 column [1] 102/18 Colvin [1] 59/15 come [21] 49/8 55/3 60/9 68/16 82/9 86/1 86/13 93/8 94/8 98/16	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2 54/12 54/15 54/23 55/1 56/2 56/8 133/24 134/5 156/7 Companies House [1] 56/8 company [12] 51/3 54/19 55/12 55/13 56/6 101/9 134/1	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17 120/1 147/6 concentrates [4] 17/18 83/13 107/22 109/2 concept [3] 47/24 47/25 48/18 concern [4] 39/24 41/20 73/18 74/16 concerned [6] 6/20
164/18         167/15         168/18           168/18         centres         [77]         2/14         2/25           3/3         3/9         3/14         3/22         4/1           5/18         13/18         14/14         14/22         2/21         2/8           29/19         29/20         3/3         3/1/3         31/18         31/25         32/3         32/7           32/8         32/11         34/17         34/22         36/5         37/21           37/24         39/20         43/4         44/7         46/16         47/18         47/20           47/21         47/22         47/25         48/1         48/14         48/15           48/14         48/14         48/15         48/19         56/15         62/4         66/25           77/17         78/8         78/13         78/13         78/13         78/13         78/20         79/9           79/10         80/2         80/5         80/7         81/13         82/22         84/15           85/2         85/4         85/21         85/25         86/8         102/15         111/2           112/21         122/23         134/23         144/11	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changes [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25 36/2 141/13 141/15 170/2 Charles Hay [1] 36/2 Charlie [3] 56/20 105/16 110/25 Charlie Rizza [1] 56/20 chart [1] 145/18	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 clarify [2] 95/19 142/3 class [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15 cleaned [2] 36/16 36/23 cleaning [1] 36/18 clear [6] 36/4 38/24 65/11 65/20 115/14 138/20 clear-cut [1] 115/14 cleared [1] 83/20	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collective [1] 152/13 collective [1] 152/13 collective [1] 152/13 collective [1] 172/13 collective [1] 172/13 column [1] 102/18 Colvin [1] 59/15 come [21] 49/8 55/3 60/9 68/16 82/9 86/1 86/13 93/8 94/8 98/16 102/6 113/17 117/9	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2 54/12 54/15 54/23 55/1 56/2 56/8 133/24 134/5 156/7 Companies House [1] 56/8 company [12] 51/3 54/19 55/12 55/13 56/6 101/9 134/1 134/11 146/21 156/8	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 82/18 compromise [1] 82/18 compromise [1] 82/18 compromise [1] 82/18 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 105/17 107/14 107/22 105/17 107/14 107/22 105/17 107/14 107/22 105/17 107/14 107/22 105/17 107/14 107/22 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17 120/1 147/6 concentrates [4] 17/18 83/13 107/22 109/2 concept [3] 47/24 47/25 48/18 concern [4] 39/24 41/20 73/18 74/16 concerned [6] 6/20 24/2 91/24 98/23
164/18         167/15         168/18           168/18         168/18           centres         [77]         2/14         2/25           3/3         3/9         3/14         3/22         4/1           5/18         13/18         14/14         14/22         2/21         28/8           29/19         29/20         30/3         31/3         31/18         31/25         32/3         31/17           3/2/8         32/11         34/17         34/22         36/5         37/21           37/24         39/20         43/4         44/7         46/16         47/18         47/20           47/21         47/22         47/25         48/1         48/14         48/14         48/15           48/14         48/14         48/15         48/14         48/19         56/15         62/4         66/25         77/17         78/8         78/13         78/13         78/13         78/13         78/13         78/13         78/13         78/13         78/13         78/13         78/14         5/28         86/8         102/15         111/2         112/21         12/21         12/22         314/23         14/11         149/13         165/21         cerebral <td< td=""><td>changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 5/25 changer [1] 14/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25 36/2 141/13 141/15 170/2 Charles Hay [1] 36/2 Charlie [3] 56/20 105/16 110/25 Charlie Rizza [1] 56/20</td><td>circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 clarify [2] 95/19 142/3 class [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15 cleaned [2] 36/16 36/23 cleaning [1] 36/18 clear [6] 36/4 38/24 65/11 65/20 115/14 138/20 clear-cut [1] 115/14</td><td>coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collective [1] 152/13 collective [1] 152/13 collective [1] 172/13 collective [</td><td>44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2 54/12 54/15 54/23 55/1 56/2 56/8 133/24 134/5 156/7 Companies House [1] 56/8 company [12] 51/3 54/19 55/12 55/13 56/6 101/9 134/1</td><td>completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17 120/1 147/6 concentrates [4] 17/18 83/13 107/22 109/2 concept [3] 47/24 47/25 48/18 concern [4] 39/24 41/20 73/18 74/16 concerned [6] 6/20</td></td<>	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changer [1] 5/25 changer [1] 14/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25 36/2 141/13 141/15 170/2 Charles Hay [1] 36/2 Charlie [3] 56/20 105/16 110/25 Charlie Rizza [1] 56/20	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 clarify [2] 95/19 142/3 class [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15 cleaned [2] 36/16 36/23 cleaning [1] 36/18 clear [6] 36/4 38/24 65/11 65/20 115/14 138/20 clear-cut [1] 115/14	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collective [1] 152/13 collective [1] 152/13 collective [1] 172/13 collective [	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2 54/12 54/15 54/23 55/1 56/2 56/8 133/24 134/5 156/7 Companies House [1] 56/8 company [12] 51/3 54/19 55/12 55/13 56/6 101/9 134/1	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 107/24 111/3 114/1 114/17 114/18 116/17 120/1 147/6 concentrates [4] 17/18 83/13 107/22 109/2 concept [3] 47/24 47/25 48/18 concern [4] 39/24 41/20 73/18 74/16 concerned [6] 6/20
164/18         167/15         168/18           168/18         centres         [77]         2/14         2/25           3/3         3/9         3/14         3/22         4/1           5/18         13/18         14/14         14/22         2/21         2/8           29/19         29/20         30/3         31/3         31/18         31/25         32/3         32/7           32/8         32/11         34/17         34/22         36/5         37/21           37/24         39/20         43/4         44/7         46/16         47/18         47/20           47/21         47/22         47/25         48/1         48/14         48/15           48/14         48/14         48/15         48/14         48/19           56/15         62/4         62/4         66/25         77/17         78/8         78/13           78/13         78/20         79/9         79/10         80/2         80/5         80/7           81/13         82/22         84/15         85/2         85/25         86/8         102/15         111/2           112/21         12/2/3         134/12         103/23         144/11         149/13 <t< td=""><td>changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changes [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25 36/2 141/13 141/15 170/2 Charles Hay [1] 36/2 Charlie [3] 56/20 105/16 110/25 Charlie Rizza [1] 56/20 chart [1] 145/18</td><td>circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 clarify [2] 95/19 142/3 class [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15 cleaned [2] 36/16 36/23 cleaning [1] 36/18 clear [6] 36/4 38/24 65/11 65/20 115/14 138/20 clear-cut [1] 115/14 cleared [1] 83/20</td><td>coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collective [1] 152/13 collective [1] 152/13 collective [1] 152/13 collective [1] 172/13 collective [1] 172/13 column [1] 102/18 Colvin [1] 59/15 come [21] 49/8 55/3 60/9 68/16 82/9 86/1 86/13 93/8 94/8 98/16 102/6 113/17 117/9</td><td>44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2 54/12 54/15 54/23 55/1 56/2 56/8 133/24 134/5 156/7 Companies House [1] 56/8 company [12] 51/3 54/19 55/12 55/13 56/6 101/9 134/1 134/11 146/21 156/8</td><td>completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 105/17 107/14 107/22 109/2 concentrates [4] 17/18 83/13 107/22 109/2 concept [3] 47/24 47/25 48/18 concern [4] 39/24 41/20 73/18 74/16 concerned [6] 6/20 24/2 91/24 98/23</td></t<>	changed [13] 8/10 12/23 35/1 39/6 39/8 47/25 48/10 48/16 67/15 67/25 69/1 101/3 121/5 changer [1] 5/25 changes [1] 114/16 changing [1] 119/2 chaos [1] 149/11 chapter [4] 57/5 123/20 132/25 133/4 characterise [1] 149/22 charge [4] 53/17 55/7 156/10 156/13 charging [1] 157/2 Charities [1] 50/5 charity [7] 46/23 50/5 50/18 50/19 50/22 51/1 51/2 CHARLES [5] 1/25 36/2 141/13 141/15 170/2 Charles Hay [1] 36/2 Charlie [3] 56/20 105/16 110/25 Charlie Rizza [1] 56/20 chart [1] 145/18	circulating [1] 30/20 circulation [1] 148/2 circumstance [1] 120/6 CJD [13] 2/19 6/8 10/12 10/21 12/1 12/18 22/22 27/22 35/9 41/25 43/6 43/25 123/11 CJD Unit [1] 43/25 claimed [1] 160/22 claiming [3] 139/9 140/1 141/20 claims [1] 142/2 clarify [2] 95/19 142/3 class [4] 141/17 146/22 147/7 148/22 classical [2] 116/5 139/15 cleaned [2] 36/16 36/23 cleaning [1] 36/18 clear [6] 36/4 38/24 65/11 65/20 115/14 138/20 clear-cut [1] 115/14 cleared [1] 83/20	coded [1] 128/20 coffee [1] 45/13 Coincidentally [1] 166/1 Colindale [1] 20/6 collapse [1] 37/17 collated [2] 11/10 123/24 collating [1] 10/16 colleagues [7] 8/23 26/3 26/6 96/4 99/24 100/24 140/19 collect [5] 50/14 59/4 63/17 85/7 120/13 collected [4] 42/17 82/19 82/20 123/21 collecting [1] 80/14 collecting [1] 80/14 collecting [1] 80/14 collective [1] 152/13 collective [1] 152/13 collective [1] 152/13 collective [1] 172/13 collective [1] 172/13 column [1] 102/18 Colvin [1] 59/15 come [21] 49/8 55/3 60/9 68/16 82/9 86/1 86/13 93/8 94/8 98/16 102/6 113/17 117/9	44/1 committees [2] 6/16 122/20 common [5] 50/20 66/9 134/4 134/15 136/6 commoner [1] 155/11 commonest [2] 98/7 113/16 commonly [1] 135/21 communicate [2] 16/4 87/11 communicating [2] 12/10 22/6 communication [3] 5/5 33/21 75/11 communications [2] 14/15 73/9 community [1] 128/20 companies [10] 54/2 54/12 54/15 54/23 55/1 56/2 56/8 133/24 134/5 156/7 Companies House [1] 56/8 company [12] 51/3 54/19 55/12 55/13 56/6 101/9 134/1 134/11 146/21 156/8	completeness [1] 82/11 completes [1] 169/2 complexity [1] 34/19 complication [1] 114/6 component [1] 78/1 comprehensive [4] 15/12 48/19 48/23 133/1 comprised [1] 82/18 compromise [1] 156/17 concentrate [19] 20/2 31/6 31/9 72/20 73/23 74/7 74/22 104/12 105/17 107/14 107/22 105/17 107/14 107/22 109/2 concentrates [4] 17/18 83/13 107/22 109/2 concept [3] 47/24 47/25 48/18 concern [4] 39/24 41/20 73/18 74/16 concerned [6] 6/20 24/2 91/24 98/23

(48) cease - concerned

		-			
С	111/7 117/12	165/4 165/22 166/3	137/24 143/15 154/22	cryoprecipitate [14]	61/22 63/11 65/13
	consider [7] 57/2 58/1	contracted [4] 21/18	155/11 157/13 163/21	101/21 107/2 107/6	66/25 67/6 67/9 67/10
concerns [2] 3/13	83/8 87/14 91/25	74/23 99/7 138/12	couldn't [11] 9/18	107/13 107/21 109/1	68/18 69/13 70/11
98/11	121/15 131/21	contracting [6]	37/6 49/8 51/2 64/6	109/7 110/2 110/7	71/8 71/18 76/8 76/12
concluded [2] 66/12	considerable [6] 4/5	127/17 135/15 162/19	65/11 130/23 140/16	110/10 110/12 111/13	78/10 78/12 80/4 85/5
68/16	61/12 74/13 144/8	162/21 162/24 163/13	148/16 154/5 157/22	112/11 155/11	85/8 123/25
conclusion [1] 111/12	149/8 149/10	contrary [1] 136/7	Council [7] 51/11	cull [2] 65/12 65/18	databases [7] 53/8
concrete [1] 6/3	considerably [1] 59/9	Contreras [3] 128/9	140/1 140/8 141/3	culminated [1] 64/16	58/25 60/1 61/18 64/3
condition [4] 9/17	consideration [3] 9/5	129/4 129/6	142/13 150/3 150/9	cup [2] 45/12 132/1	66/7 68/9
23/9 93/21 94/1	101/20 167/12	contributed [1] 45/7	counsel [6] 1/15	current [11] 27/14	date [7] 11/16 11/22
conditions [4] 1/7	considerations [2]	control [1] 26/9	101/1 131/10 131/13	34/24 35/6 69/12	17/11 25/23 51/6
1/18 54/9 60/9	90/8 166/12	controlled [1] 119/16	131/14 154/11	69/21 88/5 88/17 89/9	52/13 71/4
conduct [2] 118/6	considered [17] 6/16	convenient [1] 60/18	counselled [1] 101/12	94/24 100/6 100/13	dated [7] 11/3 14/12
156/9	7/15 34/10 34/15	conversation [3]	counselling [8] 95/25	currently [6] 1/19	26/4 32/20 40/17 46/3
conducted [6] 82/21	36/11 37/2 39/10	97/12 98/1 136/5	96/22 96/25 97/6	30/1 73/18 114/1	60/8
115/17 118/7 119/24	50/13 61/19 64/23	conversations [5]	97/19 99/18 100/11	120/19 156/19	David [1] 141/13
121/25 130/14	70/2 92/6 92/21 104/7	52/22 64/3 135/5	159/12	customary [3] 95/24	day [2] 10/19 125/8
conducting [2] 59/3	119/15 121/21 166/25	153/19 157/14	counsellor [1] 159/12	96/12 99/20	days [4] 10/7 85/14
150/1	consistent [1] 64/6	converting [1] 111/3	count [1] 89/7	cut [1] 115/14	126/3 158/4
confidentiality [5]	Consortium [1] 53/20	convinced [1] 118/12	counted [1] 68/5	cycling [1] 137/15	DDAVP [1] 139/10
64/14 64/17 65/2 66/9	conspiracy [2] 152/21		countries [3] 115/24		de [6] 32/17 32/23
159/7	152/25	coordinator [1] 43/7	118/9 127/24	D	33/11 34/6 34/10 38/4
confirm [3] 33/10 33/22 83/12	constantly [1] 136/19	copies [3] 15/18 62/4	country [12] 31/8	damaged [1] 139/13	de-notification [4]
	constitution [5] 46/2	62/5	31/11 80/6 115/25	dashed [1] 158/8	32/17 32/23 34/6 38/4
confirmed [4] 33/11	46/21 46/24 49/1 50/9	copy [7] 17/14 81/15	128/1 128/1 128/4	data [76] 6/19 10/17	de-notified [2] 33/11
65/3 70/3 70/6	constructive [1] 65/2	106/9 108/17 145/21	128/5 134/19 134/19	30/4 34/12 42/16	34/10
Connon [1] 141/13	consultant [3] 14/5	146/10 146/10	139/25 169/10	52/13 52/15 52/18	dead [1] 85/10
consensus [1] 167/17	101/13 146/6	core [4] 16/16 115/3	couple [4] 1/5 1/16	55/7 55/11 55/12 58/2	deal [7] 51/4 51/5
consent [73] 41/17 41/18 42/10 42/22	consultants [1]	131/14 169/5	111/15 147/24	58/18 59/2 59/5 59/6	55/9 63/24 113/12
43/9 43/13 43/15	167/16	corner [1] 24/19	course [30] 19/15	59/10 60/6 60/7 60/12	157/19 157/25
58/12 58/17 58/21	consultation [1]	correct [10] 2/12 5/23	25/5 27/23 28/24 60/7	60/15 60/24 61/4 61/4	dealing [1] 64/11
61/1 61/2 61/7 61/9	90/13	5/24 39/1 51/19 52/2	60/25 61/10 64/5	61/6 61/12 61/19	dealt [7] 9/6 14/22
61/10 61/14 61/14	consulting [1] 6/15	59/24 102/1 114/15	66/18 73/3 86/25	63/16 63/24 64/10	67/6 69/3 141/12
61/15 61/16 61/16	consumer [1] 141/21	136/2	89/19 100/4 105/3	64/21 65/5 65/13	151/5 167/2
61/16 61/20 64/1	contact [2] 28/8	corrected [1] 34/13	108/23 109/2 111/21	65/16 65/19 67/18	Dear [1] 26/6
64/23 65/4 65/9 65/11	137/10	corresponded [1]	114/2 116/22 125/12	67/19 68/23 68/24	death [23] 12/4 41/2
65/23 66/5 66/7 66/12	contacted [1] 12/9	46/22	125/23 127/24 129/14	69/21 70/10 70/18	63/23 64/10 67/17
66/17 66/22 67/3 67/7	contacting [2] 64/7	correspondence [4]	131/9 133/15 136/23	70/19 70/21 71/5	74/2 76/1 76/5 101/24
67/11 67/14 68/13	64/8	4/13 5/3 64/13 143/8	141/17 151/12 168/6	71/12 71/17 71/25	102/19 102/20 102/24
68/17 69/14 69/20	contain [1] 144/3	cost [8] 4/5 55/1	168/7	72/5 72/10 72/17	102/24 104/15 104/21
69/24 70/8 70/12	contained [1] 130/4			72/18 73/3 75/12	108/19 108/20 109/15
70/13 70/15 88/2 88/2	contains [1] 41/23	163/18 164/15 165/8	cover [1] 156/18	75/21 76/3 79/9 79/11	110/3 110/16 113/2
88/8 88/12 89/2 92/8	contaminated [6]	costing [1] 37/10	coverage [1] 138/4	79/23 80/9 80/19	113/16 114/21
92/11 92/11 92/15	4/21 28/15 36/20	costs [2] 54/13	covered [3] 40/13	80/23 80/23 81/3 81/5	death: [1] 109/18
92/19 93/18 93/22	123/7 123/14 123/14	156/19	44/8 110/14	81/5 81/18 81/23	death: 42.3 [1] 109/18
93/22 93/24 95/2 95/3	context [5] 16/18	could [59] 2/15 4/14	covers [2] 106/10	82/18 82/20 82/23	deaths [7] 43/3
95/4 96/1 99/21 99/22	58/24 71/13 101/19	5/5 5/16 6/3 16/21	122/8	105/4 114/9 120/13	103/19 103/22 103/24
100/2 100/3 115/21	149/3	18/11 18/24 19/3	Covid [2] 67/11 68/10	123/24 166/4	109/19 109/23 111/16
115/23 120/23 121/10	continue [6] 1/19	19/18 20/25 22/12	created [1] 129/22		debate [1] 61/8
122/14	18/24 51/2 57/24 82/8	22/19 27/9 30/3 34/10	Creutzfeldt [13] 8/11	9/9 10/16 17/15 28/20	debates [1] 58/20
consented [3] 88/10	92/14	35/12 35/14 35/19	9/24 10/4 16/23 18/15	29/7 29/20 29/25 30/1	decade [2] 39/5 128/8
120/14 122/1	continued [11] 2/1 2/2		22/12 24/12 24/25	30/5 33/18 33/22	decades [1] 79/14
consenting [2] 88/15	3/14 3/22 39/10 54/19	38/16 38/21 40/4	26/25 36/14 39/3	34/12 34/17 40/18	deceased [6] 43/11
88/18	160/14 163/10 163/19	45/25 49/3 52/18	39/16 135/23	41/4 42/18 43/4 44/6	43/18 65/16 73/20
consequence [1]	170/2 170/3	53/11 57/19 62/5	crisis [2] 57/17 104/8	45/24 51/7 52/3 52/8 52/11 53/4 53/11	73/22 75/25
127/7	continues [4] 10/18	62/16 65/22 66/10	criteria [1] 48/21	53/22 54/13 56/5	December [2] 5/22 143/19
consequences [4] 3/7	13/5 13/14 71/16	66/12 71/9 73/6 75/18	critical [1] 135/22	56/11 56/12 56/14	
35/11 135/14 167/8	continuing [2] 3/2 27/15	76/10 76/24 81/9 83/12 86/16 91/10	criticised [1] 119/18 cross [1] 128/12	57/2 57/6 57/8 58/2	December 2002 [1] 143/19
consequently [1]	contract [10] 135/2	94/9 97/12 121/16	cross[i] 120/12 crossfire [2] 140/20	58/7 58/10 58/13	December 2003 [1]
82/24	161/8 161/12 162/8	127/7 128/20 130/9	150/22	58/14 58/25 59/13	5/22
conservative [2]	163/1 163/4 163/15	135/5 137/11 137/19	cryo [2] 111/5 113/20	59/17 59/23 60/5	decide [1] 168/8
				00/11 00/20 00/0	
L	I	L	L	L	(10)

(49) concerns - decide

[	1	1	[]		
D	117/5 123/19	65/3 65/12 85/7 97/14	discounts [1] 163/5	do [82] 1/10 1/11 1/20	33/14
	description [1] 12/12	97/15 113/6 134/21	discourage [1] 72/14	3/12 7/25 8/1 19/5	don't [56] 3/10 11/7
decided [5] 16/1	design [2] 119/17	143/3 147/14 148/1	discover [2] 9/19	20/16 22/6 23/24 27/6	11/13 17/6 19/9 20/10
46/23 50/10 58/6	121/16	150/14 156/2 157/12	49/21	27/9 32/7 32/8 33/16	24/5 25/3 27/7 27/21
75/17	designation [1] 48/21	157/25 158/3 158/14	discovered [1] 164/17	44/4 44/10 45/3 49/4	30/8 44/9 45/1 47/8
decision [4] 16/10					
42/4 70/5 134/22	designed [1] 92/19	158/18 159/19 164/9	discrete [1] 71/7	49/20 54/4 55/25	51/12 56/3 59/21 61/2
decision-maker [1]	desire [2] 118/24	166/16	discriminate [1]	57/24 70/16 70/21	62/7 62/22 69/6 70/22
70/5	139/12	die [2] 24/15 113/6	166/16	71/17 75/17 80/10	71/4 71/5 75/13 80/10
decisions [4] 55/24	desired [1] 164/11	died [14] 23/9 24/23	discuss [3] 33/22	85/1 85/13 85/21 86/7	85/9 92/21 93/1 93/2
74/19 133/25 167/17	despite [3] 70/19	65/12 65/13 68/14	89/9 138/25	86/9 87/15 88/16	93/7 94/24 95/12
decline [1] 96/18	101/12 138/21	73/25 75/4 76/22	discussed [9] 2/21	89/24 93/1 93/7 94/7	98/18 106/3 111/12
	destination [1] 8/13	79/25 80/12 92/14	34/22 43/25 62/12	94/22 98/5 100/2	115/15 122/8 131/2
declining [1] 96/19	destroyed [5] 73/24	101/5 103/3 113/6	64/18 68/12 89/6	112/21 112/24 118/14	131/15 133/22 134/24
decrease [1] 111/17	74/5 75/4 76/1 80/13	difference [4] 105/20	104/9 125/4	118/16 120/17 120/18	135/3 142/21 146/16
decreased [1] 101/24	detail [11] 10/25	113/13 113/18 115/9	discussion [4] 9/13	120/19 120/24 121/2	149/20 152/22 153/16
dedication [1] 144/9	11/13 19/16 20/11	differences [1] 128/15		121/7 121/17 123/11	154/1 157/23 160/6
deferred [1] 39/22	24/5 29/23 34/4 40/13	different [30] 26/21	discussions [8] 9/16	123/25 126/15 127/24	161/19 162/3 164/6
deficient [1] 31/8	75/8 123/20 157/10	31/11 36/4 36/5 59/1	34/2 53/15 135/13	130/12 130/23 131/18	167/7 167/23
definition [1] 118/5	detailed [4] 56/9 73/2	63/25 80/5 90/8 92/23	135/16 135/22 135/22	131/19 136/19 137/15	
degree [4] 150/17					donate [4] 126/4
154/2 159/1 165/20	81/5 144/3	93/20 94/13 98/1	143/13	138/3 143/5 144/3	126/6 128/14 129/14
deliberately [1] 81/20	details [3] 11/8 85/16	98/11 99/15 100/21	disease [29] 3/25 5/1	144/17 146/18 146/23	donated [3] 125/1
Deloitte [3] 163/16	121/5	100/22 105/8 115/11	8/9 8/12 9/24 10/4	148/18 151/10 151/12	125/19 125/19
164/3 164/14	determine [2] 7/20	120/1 120/6 122/15	16/23 18/15 22/12	151/13 151/19 155/20	donates [1] 125/17
demand [1] 114/5	117/11	123/3 127/24 134/7	24/13 24/25 26/25	156/18 161/19 162/10	donating [1] 126/5
demonstrate [1]	determined [2] 14/18	137/20 151/22 157/8	36/14 37/8 39/3 53/8	162/22 165/19 167/21	donation [3] 5/22
166/18	28/12	157/8 165/21 165/21	57/3 61/18 64/3 68/9	168/6	125/15 129/11
	develop [7] 10/3 13/8	difficult [12] 63/24	74/1 79/4 81/6 82/3	doctor [2] 63/9 150/11	donations [7] 6/12
department [33] 14/8	23/6 53/11 127/9	80/12 80/15 80/20	94/2 97/25 130/11	doctors [11] 14/3 14/5	20/3 127/2 127/8
37/19 50/17 51/13	158/3 160/4	82/23 85/11 105/7	135/23 159/25	15/3 22/23 23/20 47/5	127/18 128/19 130/19
51/16 51/20 52/16	developed [11] 4/22	105/13 118/6 118/17	diseases [1] 57/2	47/6 63/5 98/5 98/5	done [14] 9/1 20/19
52/19 52/21 52/24	6/13 9/24 10/9 20/4	124/20 166/18	disorder [4] 83/9	156/9	89/23 90/4 91/21 92/2
53/12 56/2 78/24 80/9	24/24 57/6 75/1 127/2	difficulties [1] 143/21	84/14 91/2 94/15	document [11] 11/1	108/5 116/13 116/14
80/25 81/11 84/21	130/5 160/7	difficulty [7] 64/7 64/8	disorders [12] 8/18	18/23 35/15 35/16	117/6 130/12 143/10
123/1 126/20 140/14	developing [3] 7/10	66/4 69/4 105/12	15/16 17/14 19/11	42/15 76/18 86/24	151/20 166/18
140/25 141/5 141/12	24/12 69/7	118/9 166/14	23/23 46/9 46/16	87/6 102/5 148/23	
147/23 148/6 149/1				152/3	donor [13] 12/5 21/18 23/5 125/12 125/16
149/12 150/6 161/21	development [1] 55/3	digest [1] 63/7	62/15 76/18 77/5 83/4		
161/21 161/25 163/11	device [1] 163/17	digging [1] 94/5	102/13	documentary [1] 75/3	
164/2	diagnosed [3] 79/18	Digital [4] 63/23 64/4	Disorders: [1] 76/14	documentation [3]	129/9 129/10 129/17
department's [1]	79/21 84/13	67/17 69/2	Disorders: 2009/10 [1]		130/21 130/23
164/5	diagnoses [1] 90/15	direct [2] 51/12 86/6	76/14	documented [5] 7/17	donors [25] 124/22
departments [1]	diagnosis [4] 27/1	directed [4] 25/14	displeasure [1] 4/23	7/23 74/24 80/19 84/3	125/9 125/18 125/18
93/14	46/15 77/18 124/11	86/23 129/15 130/16	disposable [5] 9/1	documents [11] 6/5	125/21 125/22 125/22
dependent [3] 135/6	dialogue [1] 34/11	directly [4] 4/24 5/1	29/14 35/2 39/12 40/7	8/3 10/20 11/2 15/6	125/23 126/1 126/1
162/4 162/5	did [48] 3/14 8/12	75/12 123/17	dispose [1] 93/16	17/11 32/5 34/5 41/14	126/4 126/12 126/13
	13/18 17/17 24/15	director [9] 19/6	dispute [1] 154/1	42/13 148/23	127/6 127/11 127/20
dependents [1] 73/20	26/20 27/3 51/10	28/19 44/4 44/5 45/4	disseminated [1]	does [15] 1/21 13/2	129/12 129/21 129/22
depending [4] 48/20	51/15 53/12 59/19	56/17 150/2 155/1	69/15	13/7 15/25 22/3 27/18	129/23 130/3 130/3
49/22 89/11 90/8	60/3 61/1 62/20 72/5	168/18	dissolve [1] 156/2	34/24 35/5 51/20	130/9 130/17 130/20
deposit [2] 44/15	72/6 75/23 77/17 80/8	Directorate [1] 163/16		101/16 114/24 128/16	dose [2] 118/8 118/8
44/15	82/7 88/8 96/16 100/2		142/7	130/24 137/4 161/16	dot [1] 115/4
deprecate [1] 72/13	112/17 122/5 123/6	14/4 14/24 19/25	distinction [2] 114/24	does it [4] 15/25 35/5	double [1] 37/9
derive [1] 127/10	123/25 128/18 130/14	20/16 22/7 23/21	115/13	114/24 130/24	doubled [3] 108/21
derived [2] 125/6	132/20 133/4 133/16	27/11 28/10 28/23	distress [2] 27/6	doesn't [10] 23/19	110/4 110/9
126/3	136/8 142/6 142/8	33/13 46/3 47/2 56/7	74/14	25/19 62/24 85/6	doubt [2] 74/19
describe [6] 89/11			distressed [2] 26/18		160/16
89/14 90/16 115/8	148/6 149/22 152/16	102/15 103/21 139/25	153/7	88/23 97/14 104/19	
133/4 150/17	152/24 155/19 156/21	143/6 143/8 143/13		114/23 119/17 136/4	down [17] 1/22 10/6
described [9] 2/7 6/17	158/1 160/4 160/5	149/15 149/18 149/24	distribute [1] 62/4	doing [12] 66/13	57/12 67/13 83/1
13/23 48/11 54/6	160/22 162/23 162/24	disagreed [1] 118/15	distribution [1] 20/8	70/24 70/25 89/15	89/22 102/25 116/6
69/19 99/18 107/8	164/16	disappear [1] 167/7	district [2] 57/22	90/3 90/10 96/8	130/24 137/24 146/13
162/21	didn't [29] 18/8 18/10	disappointed [1]	79/15	117/18 118/10 118/13	149/4 152/8 157/17
describing [3] 70/8	22/13 31/12 36/17	144/2	divided [1] 48/13	120/22 138/19	164/6 166/2 166/20
	44/1 57/2 57/24 64/9	disciplinary [1] 166/5	DNA [1] 94/9	Dolan [3] 32/20 33/13	downwards [2] 39/7
					(50) decided downwarde

(50) decided - downwards

D	33/21 34/9 34/11 62/3	145/18 159/8 159/13	134/21	37/12 37/18 64/11	138/18 152/6
downwards [1] 39/9	67/1 67/7 89/3 115/12	162/5	entire [2] 49/17	137/16	exemption [5] 66/9
Dr [19] 2/18 32/20	120/19 164/12 165/23	elsewhere [3] 40/14	167/11	ever [8] 16/5 48/3	66/10 68/19 70/1
33/13 33/14 71/16	earlier [14] 5/9 5/10	109/8 159/3	entirely [10] 49/7	71/4 123/6 133/3	70/16
71/18 87/1 87/2 87/17	5/16 18/9 48/2 68/6	Elstree [1] 154/18	62/22 66/14 70/14	137/1 150/5 156/21	exemptions [1] 71/6
101/25 102/12 110/4	68/12 72/8 110/22	email [6] 19/21 20/1	81/10 117/13 142/24	every [12] 11/1 16/4	exercise [31] 4/12
110/15 113/3 121/1	123/12 126/19 141/14	21/1 21/13 21/15	150/4 150/7 152/1	88/18 89/15 89/22	5/19 6/6 10/11 12/3
132/18 169/13 169/13	151/2 163/7	87/11	entitled [1] 76/12	89/23 121/11 125/24	13/24 16/1 20/19 22/9
169/13	early [33] 10/7 51/8	emails [2] 87/5 151/6	entries [1] 145/10	136/23 139/12 144/14	22/16 22/19 24/8 26/9
Dr Al-Ismail [1]	53/21 57/1 72/4 72/18	embittered [2] 151/17	episodes [2] 124/15	166/15	26/17 28/7 28/21 29/1
169/13	75/8 77/9 85/10 85/12	157/20	145/16	everybody [4] 16/9	32/17 34/7 34/19 38/4
Dr Biggs [3] 87/1	105/6 108/18 111/6 112/15 119/6 119/8	emerge [2] 84/18 158/13	era [3] 106/25 153/12 153/22	55/23 81/5 163/15	38/14 76/9 76/13 78/18 79/8 81/21
87/17 110/4	123/22 124/23 125/17	emerged [2] 36/21	eradicate [1] 124/21	everyone [4] 8/22 63/17 112/12 113/19	82/13 82/21 82/22
Dr Dolan [3] 32/20	126/11 126/22 127/21	97/7	Err [1] 27/20	everything [2] 26/20	84/20
33/13 33/14	128/6 129/7 129/7	emotional [1] 151/16	error [1] 32/2	121/9	exercises [4] 2/5 82/2
Dr Giangrande [1]	129/24 136/12 136/24	emphasise [1] 152/11	errors [1] 33/23	everywhere [1] 40/1	86/7 130/13
169/13	137/9 154/13 155/2	emphasised [1] 14/21		evidence [36] 2/13	exhibit [3] 81/14
Dr Greaves [1] 121/1	158/4 161/1	employed [2] 57/9	20/15 87/1 88/3 93/8	22/11 24/11 24/18	106/8 126/19
Dr Hay [2] 71/16	early eighties [1]	148/3	137/13	25/11 36/17 36/21	exhibited [4] 24/6
71/18	111/6	employing [1] 57/23	establish [3] 43/5	36/24 59/20 74/3 74/7	30/11 32/6 40/17
Dr Ludlam [1] 2/18	ease [1] 166/7	enabled [1] 163/6	43/20 116/17	75/20 83/20 83/23	exhibition [2] 134/15
Dr Mitchell [1] 169/13	easier [2] 86/8 103/11	enables [1] 67/5	established [11]	96/14 96/14 101/17	134/16
Dr Peter Jones [1] 132/18	easily [1] 156/2	enclosed [1] 23/22	12/19 56/12 56/14	101/23 102/7 104/1	exhibits [9] 9/8 40/11
Dr Rizza [4] 87/2	easy [2] 27/1 90/17	encloses [1] 24/3	56/15 60/3 105/18	119/15 126/21 142/10	61/25 63/3 66/21
101/25 102/12 113/3	Edinburgh [3] 42/1	enclosing [1] 33/14	105/24 110/13 111/22	145/12 154/14 159/14	92/10 102/9 126/19
Dr Rizza's [1] 110/15	43/25 48/7	encourage [1] 137/16	112/12 163/4	167/6 167/13 168/7	127/14
draft [3] 21/3 21/8	edit [1] 148/19	encouraged [3] 68/20	establishment [1]	168/12 168/13 168/17	existence [1] 112/16
41/17	edition [1] 133/1	126/2 137/16	53/22	168/21 169/2 169/11	exists [2] 46/6 145/23
dragged [1] 98/24	educated [1] 38/22	encouraging [3]	estimate [3] 6/21	169/12	expect [6] 71/20 84/2
dramatic [3] 105/19	effect [6] 78/17 96/8	138/13 138/18 140/11	84/11 130/25	exactly [5] 3/20 54/3	105/19 113/18 114/3
113/18 114/23	117/7 119/25 164/11	end [6] 30/18 79/1	et [3] 15/14 128/9	55/12 114/10 147/14	121/13
dramatically [4] 44/11	167/1	90/12 125/25 142/5	144/4	examination [3] 41/19	
67/13 114/6 129/17	effectively [4] 30/4	168/18	ethical [8] 40/21	41/24 43/14	101/18 101/25 103/15
draw [2] 108/15 113/1	52/4 78/14 78/22	ending [1] 162/18 endoscope [5] 36/13	43/24 44/1 115/11 121/3 121/11 121/17	examined [2] 42/2 44/3	104/13 104/16 105/1 105/5 105/23 106/17
drawn [2] 96/24	efficacy [2] 55/16 116/17	36/18 37/2 37/9 38/1	121/3 121/11 121/17	examining [1] 75/6	106/23 111/17 112/7
123/16	Efforts [1] 7/18	endoscopes [8] 9/2	ethics [9] 62/14 62/20		expectation [3] 14/13
drew [1] 104/3	eggs [1] 161/10	35/1 36/15 37/5 37/14	67/8 67/9 117/25	36/15 36/22 40/8	103/10 158/7
drifted [1] 126/7	eight [2] 9/25 21/22	37/15 38/6 39/13	121/8 121/13 122/17	54/25 55/4 55/10	expectations [1]
drifting [1] 128/24	eighties [7] 77/9	endoscopies [3] 36/2		55/14 55/20 56/23	164/13
drifting [1] 128/24 drug [2] 124/5 164/15	111/6 112/15 125/8	36/3 36/9	ethnic [2] 128/13	61/5 65/6 89/6 89/12	expected [3] 52/25
arugs [2] 90/24	125/25 126/23 136/10	endoscopy [3] 36/10	128/15	92/22 94/9 94/11 95/5	135/13 158/13
167/10	either [13] 5/14 29/5	37/9 37/16	Europe [1] 59/8	99/4 116/11 118/8	expensive [3] 4/8
due [3] 26/8 103/23 168/7	41/11 50/1 51/13 56/1	engage [1] 168/10	European [1] 124/4	119/22 121/15 121/24	37/10 164/22
during [24] 16/20	63/5 63/9 74/6 93/3	engaged [1] 119/7	evaluate [2] 124/15	124/8 128/19 128/22	experience [5] 64/4
36/22 51/15 73/23	98/17 142/6 165/16	engineer [1] 57/10	127/7	129/25 135/22 136/24	112/20 136/3 136/15
74/8 74/22 77/6 80/6	elect [1] 46/16	England [8] 53/19	evaluation [3] 90/18	139/15 140/9 153/23	159/23
83/10 100/11 100/19	elected [3] 49/2 49/11	55/10 55/11 55/15	91/6 166/15	160/3 161/3 166/21	experiences [1]
102/14 105/17 110/5	49/19	55/23 65/6 119/24	even [23] 9/20 15/22	exceeded [1] 164/13	151/17
111/1 113/16 113/22	election [1] 49/16	120/5	27/3 49/5 57/3 73/21	exception [1] 160/25	experiments [1]
132/16 133/6 133/24	electronic [1] 67/7	enhance [1] 152/15	74/1 74/3 75/3 79/14	exchange [2] 4/13	119/22
147/6 153/22 165/1	element [3] 67/19	enormous [1] 164/21	85/12 92/13 94/25	142/8	expert [1] 147/1
165/1	81/12 156/14	enough [2] 52/16	98/4 122/24 135/24	exclude [3] 28/1 28/4	explain [7] 18/9 26/11
duty [1] 66/9	elements [1] 140/11	107/25	144/1 147/12 148/19	119/21	77/14 86/4 91/5 93/24
dying [1] 113/25	Elephant [1] 64/15	enquire [1] 41/5	157/24 164/3 164/19	excluding [1] 119/20	146/16
	elicit [1] 99/6	enquirer [1] 13/24	166/9 event [4] 5/17 123/18	exclusion [1] 129/11	explained [4] 90/5
<u>E</u>	eligible [2] 68/19 75/2 eliminating [2] 160/9	enquiry [3] 142/10 149/17 152/13	123/19 131/17	exclusively [1] 31/3 excreted [1] 167/5	95/10 143/2 148/14
each [20] 6/22 6/22	160/10	ensuing [1] 36/4	events [3] 15/23	Excuse [1] 141/4	explaining [2] 20/12 71/20
9/7 9/9 15/18 17/23	else [9] 26/21 37/7	ensure [5] 15/10	123/21 124/1	executive [7] 33/24	explains [6] 12/9
29/25 33/19 33/20	91/21 92/2 94/3	15/18 18/6 25/22	eventually [5] 36/21	58/5 68/6 73/14 73/14	21/17 23/1 23/7 41/25
			515maanj [0] 00/21		
	L	L	L		1) downwards - explains

(51) downwards... - explains

	1	1	I		
E	33/4 35/7 35/8 55/2	felt [25] 8/19 8/22	130/2 130/3 146/13	60/17 79/14 122/23	20/2 20/13 22/9 22/16
explains [1] 115/10	55/16 74/22 107/14	15/21 16/11 22/15	five years [1] 66/1	132/2 132/4 132/5	22/18 41/14 42/15
explanation [1] 12/22	107/14 108/21 108/25	25/9 39/11 54/6 54/7	fixed [1] 118/12	167/15	61/5 62/5 81/24 84/18
explicitly [1] 94/6	110/1 110/6 114/17	57/19 59/4 60/23	flavour [1] 81/16	four o'clock [3] 132/2	87/12 93/17 112/24
explore [3] 63/19	114/18 116/16 144/14	65/22 66/16 68/9	flower [1] 105/23	132/4 132/5	124/15 131/12 140/14
96/10 109/8	144/15 163/19 164/17	70/22 76/4 83/8	focused [2] 56/25	four years [1] 46/19	149/4 160/17 160/18
exposed [12] 6/11	165/6	100/23 134/24 135/4	78/23	fourth [7] 21/4 21/6	167/21 168/7
9/19 9/21 16/20 72/20	Factor IX [4] 33/4	140/19 152/20 153/3	focusing [1] 55/6	21/16 22/7 35/15	future [6] 58/1 92/18
72/21 79/19 84/7	35/8 107/14 144/15	157/17	fold [1] 53/9	106/11 108/12	92/25 93/9 93/10
127/6 127/8 127/18	Factor VIII [18] 23/4	few [7] 24/24 38/3	follow [20] 15/25	fractionators [1] 6/20	93/11
158/6	23/11 33/3 35/7 55/2	90/20 96/8 101/4	19/12 27/10 28/16	frame [1] 16/6	G
exposure [11] 7/17	55/16 107/14 108/21	143/17 161/2	30/8 30/9 65/25 68/15	France [2] 115/25	
7/22 9/25 17/8 17/22	108/25 110/1 110/6	fewer [4] 55/18 116/1	77/13 77/17 77/21	115/25	gained [1] 140/10
18/21 24/14 25/6	114/17 114/18 116/16	155/14 155/15		Frank [1] 3/7	game [1] 5/24
83/11 83/23 84/3	144/14 163/19 164/17	fictitious [1] 150/4	91/3 98/16 115/5	frankly [5] 26/24	gap [3] 3/17 3/17 60/9
express [4] 69/24	165/6	field [1] 131/10	118/25 141/25	44/24 145/14 157/18	gathered [1] 11/9
70/12 70/12 73/17	Factor XI [2] 31/6	fighting [2] 149/15	follow-up [11] 19/12	164/13	gave [5] 5/2 16/16
expressed [3] 3/12	31/7	149/24	28/16 65/25 68/15	Free [12] 3/1 31/4	28/22 67/8 148/4
3/13 30/17	factors [2] 23/3 55/2	figure [2] 104/25	77/13 77/21 80/11	31/5 31/6 31/20 32/6	GDPR [2] 64/20 72/11
expresses [1] 107/11	factual [4] 88/4 96/11	127/11	82/25 84/6 91/3 98/16	32/10 32/13 37/24	gene [2] 94/16 94/17
expressing [1] 4/22	142/16 143/12	figures [5] 103/5	followed [7] 29/6 29/6	48/5 159/10 159/15	general [26] 35/13
expressly [1] 104/6	fair [1] 111/11	103/17 109/10 109/20	61/8 78/8 109/4	freedom [2] 163/20	39/7 50/6 50/23 51/5
extend [2] 87/17	fairly [7] 2/10 38/1	113/13	111/25 144/10	165/20	62/19 79/15 89/12
166/24	87/6 100/12 109/21	file [1] 15/18	following [12] 2/7	frenzy [2] 146/15	90/16 92/23 95/1 98/8
extended [4] 49/3	114/20 147/25	fill [3] 34/12 78/22	14/20 26/23 37/22 42/12 43/6 75/11	146/19	99/3 131/14 132/20 134/1 134/9 135/11
55/16 55/17 166/21	faith [1] 154/4 fall [2] 7/13 129/13	116/4 final [7] 34/13 57/4	84/20 103/23 119/22	frequency [3] 65/24 126/24 128/16	140/1 141/3 142/11
extensive [1] 72/19	fallen [1] 77/22	81/15 123/20 148/23	129/13 169/5	frequently [6] 49/20	142/13 143/23 150/3
extensively [1]	false [4] 30/13 124/9	148/23 152/3	follows [1] 71/15	65/21 84/16 126/5	150/9 161/9
101/22	140/4 142/24	financial [6] 3/5 3/21	Food [1] 124/5	154/20 154/23	General Medical [2]
extent [12] 7/16 7/22	familial [1] 94/16	56/9 75/7 140/24	football [1] 137/13	friendly [1] 72/16	141/3 142/13
13/6 25/15 43/5 44/6					
1	familiar [2] 28/25	161/22	force [2] 58/19 60/10	from [192]	generality [1] 131/15
50/16 75/10 75/24	familiar [2] 28/25	161/22	force [2] 58/19 60/10	from [192] front [1] 35/19	generality [1] 131/15 generally [2] 50/7
50/16 75/10 75/24 133/11 160/23 164/13	142/14	find [12] 29/4 72/22	forgot [1] 34/25	front [1] 35/19	generally [2] 50/7
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15	142/14 far [28] 10/8 13/19	find [12] 29/4 72/22 125/20 127/14 136/15	forgot [1] 34/25 form [32] 17/8 17/13	front [1] 35/19 fulfilled [1] 59/11	generally [2] 50/7 160/13
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21	142/14 far [28] 10/8 13/19 13/21 14/12 14/18	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15	front [1] 35/19	generally [2] 50/7
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25	find [12] 29/4 72/22 125/20 127/14 136/15	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21	front [1] 35/19 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22	generally [2] 50/7 160/13 generate [2] 33/18 78/12
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2	142/14 <b>far [28]</b> 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8	front [1] 35/19 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21	generally [2] 50/7 160/13 generate [2] 33/18
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9	142/14 <b>far [28]</b> 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13	front [1] 35/19 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1]	142/14 <b>far [28]</b> 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8	front [1] 35/19 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1	142/14 <b>far [28]</b> 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11	front [1] 35/19 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25	front [1] 35/19 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1	front [1] 35/19 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21	142/14 <b>far [28]</b> 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22	front [1] 35/19 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 firm [1] 6/15	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22	front [1] 35/19 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 46/10	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 firm [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25	front [1] 35/19 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 firm [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6	front [1] 35/19 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 firm [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formally [2] 56/12	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 firm [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formaliy [2] 56/12 132/12	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12 faces [1] 1/12	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22 26/4 26/10	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 firm [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1 102/7 103/1 103/25	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formally [2] 56/12 132/12 formed [3] 51/4 51/9	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1 fundamental [1]	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10 15/10 34/18 36/19
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12 faces [1] 1/12 facilitate [4] 53/12	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22 26/4 26/10 February 16 [1] 26/10	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 firm [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1 102/7 103/1 103/25 106/13 106/14 106/16	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formally [2] 56/12 132/12 formed [3] 51/4 51/9 107/23	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1 fundamental [1] 64/22	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10 15/10 34/18 36/19 45/12 53/18 54/24
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12 faces [1] 1/12 facilitate [4] 53/12 86/8 92/17 166/4	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22 26/4 26/10 February 16 [1] 26/10 February 2009 [1]	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finsh [1] 18/10 firm [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1 102/7 103/1 103/25 106/13 106/14 106/16 107/5 107/10 113/9	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formally [2] 56/12 132/12 formed [3] 51/4 51/9 107/23 forms [6] 9/8 66/22	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1 fundamental [1] 64/22 funded [4] 50/3 51/22	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10 15/10 34/18 36/19 45/12 53/18 54/24 57/20 64/6 65/9 65/11
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12 faces [1] 1/12 facilitate [4] 53/12 86/8 92/17 166/4 facilitated [1] 53/15	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22 26/4 26/10 February 16 [1] 26/10 February 2009 [1] 22/22	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 firms [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1 102/7 103/1 103/25 106/13 106/14 106/16 107/5 107/10 113/9 115/7 125/18 125/21	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formaliged [1] 49/6 formaliged [3] 51/4 51/9 107/23 forms [6] 9/8 66/22 67/19 116/4 117/12	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1 fundamental [1] 64/22 funded [4] 50/3 51/22 53/4 54/22	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10 15/10 34/18 36/19 45/12 53/18 54/24 57/20 64/6 65/9 65/11 66/5 66/7 66/10 66/12
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12 faces [1] 1/12 facilitate [4] 53/12 86/8 92/17 166/4	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22 26/4 26/10 February 16 [1] 26/10 February 2009 [1] 22/22 fee [3] 50/11 72/9	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 firms [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1 102/7 103/1 103/25 106/13 106/14 106/16 107/5 107/10 113/9 115/7 125/18 125/21 126/13 129/25 130/2	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formalig [2] 56/12 132/12 formed [3] 51/4 51/9 107/23 forms [6] 9/8 66/22 67/19 116/4 117/12 119/11	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1 fundamental [1] 64/22 funded [4] 50/3 51/22 53/4 54/22 funding [22] 50/4	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10 15/10 34/18 36/19 45/12 53/18 54/24 57/20 64/6 65/9 65/11 66/5 66/7 66/10 66/12 66/25 72/15 72/17
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12 faces [1] 1/12 facilitate [4] 53/12 86/8 92/17 166/4 facilitated [1] 53/15 fact [20] 4/3 24/15	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22 26/4 26/10 February 16 [1] 26/10 February 2009 [1] 22/22 fee [3] 50/11 72/9 72/11	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 firms [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1 102/7 103/1 103/25 106/13 106/14 106/16 107/5 107/10 113/9 115/7 125/18 125/21 126/13 129/25 130/2 133/1 133/2 152/5	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formaliged [1] 49/6 formaliged [3] 51/4 51/9 107/23 forms [6] 9/8 66/22 67/19 116/4 117/12 119/11 fortunately [2] 86/13	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1 fundamental [1] 64/22 funded [4] 50/3 51/22 53/4 54/22 funding [22] 50/4 50/16 50/18 51/10	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10 15/10 34/18 36/19 45/12 53/18 54/24 57/20 64/6 65/9 65/11 66/5 66/7 66/10 66/12 66/25 72/15 72/17 80/3 80/23 89/21
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12 faces [1] 1/12 facilitate [4] 53/12 86/8 92/17 166/4 facilitated [1] 53/15 fact [20] 4/3 24/15 31/20 31/23 33/10	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22 26/4 26/10 February 16 [1] 26/10 February 2009 [1] 22/22 fee [3] 50/11 72/9 72/11 feeding [2] 146/14	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 firm [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1 102/7 103/1 103/25 106/13 106/14 106/16 107/5 107/10 113/9 115/7 125/18 125/21 126/13 129/25 130/2 133/1 133/2 152/5 154/13 163/1 163/14	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formaliged [1] 49/6 formaliged [3] 51/4 51/9 107/23 forms [6] 9/8 66/22 67/19 116/4 117/12 119/11 fortunately [2] 86/13 160/10	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1 fundamental [1] 64/22 funded [4] 50/3 51/22 53/4 54/22 funding [22] 50/4 50/16 50/18 51/10 51/13 51/16 51/21	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10 15/10 34/18 36/19 45/12 53/18 54/24 57/20 64/6 65/9 65/11 66/5 66/7 66/10 66/12 66/25 72/15 72/17 80/3 80/23 89/21 90/21 97/25 100/2
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12 faces [1] 1/12 facilitate [4] 53/12 86/8 92/17 166/4 facilitated [1] 53/15 fact [20] 4/3 24/15 31/20 31/23 33/10 37/7 43/21 56/19	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22 26/4 26/10 February 16 [1] 26/10 February 2009 [1] 22/22 fee [3] 50/11 72/9 72/11 feeding [2] 146/14 146/19	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1 102/7 103/1 103/25 106/13 106/14 106/16 107/5 107/10 113/9 115/7 125/18 125/21 126/13 129/25 130/2 133/1 133/2 152/5 154/13 163/1 163/14 163/17	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formaliged [1] 49/6 formaliged [3] 51/4 51/9 107/23 forms [6] 9/8 66/22 67/19 116/4 117/12 119/11 fortunately [2] 86/13 160/10 forums [1] 151/23	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1 fundamental [1] 64/22 funded [4] 50/3 51/22 53/4 54/22 funding [22] 50/4 50/16 50/18 51/10 51/13 51/16 51/21 52/1 52/4 52/23 53/7	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10 15/10 34/18 36/19 45/12 53/18 54/24 57/20 64/6 65/9 65/11 66/5 66/7 66/10 66/12 66/25 72/15 72/17 80/3 80/23 89/21 90/21 97/25 100/2 100/2 109/10 120/23
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12 faces [1] 1/12 facilitate [4] 53/12 86/8 92/17 166/4 facilitated [1] 53/15 fact [20] 4/3 24/15 31/20 31/23 33/10 37/7 43/21 56/19 65/25 68/13 72/6	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22 26/4 26/10 February 16 [1] 26/10 February 2009 [1] 22/22 fee [3] 50/11 72/9 72/11 feeding [2] 146/14 146/19 feel [5] 49/22 138/3	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1 102/7 103/1 103/25 106/13 106/14 106/16 107/5 107/10 113/9 115/7 125/18 125/21 126/13 129/25 130/2 133/1 133/2 152/5 154/13 163/1 163/14 163/17 first-time [2] 125/21	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formalised [1] 49/6 formaliged [3] 51/4 51/9 107/23 forms [6] 9/8 66/22 67/19 116/4 117/12 119/11 fortunately [2] 86/13 160/10 forums [1] 151/23 forward [1] 87/20	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1 fundamental [1] 64/22 funded [4] 50/3 51/22 53/4 54/22 funding [22] 50/4 50/16 50/18 51/10 51/13 51/16 51/21 52/1 52/4 52/23 53/7 53/10 53/13 53/17	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10 15/10 34/18 36/19 45/12 53/18 54/24 57/20 64/6 65/9 65/11 66/5 66/7 66/10 66/12 66/25 72/15 72/17 80/3 80/23 89/21 90/21 97/25 100/2 100/2 109/10 120/23 122/11 122/24 123/1
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12 faces [1] 1/12 facilitate [4] 53/12 86/8 92/17 166/4 facilitated [1] 53/15 fact [20] 4/3 24/15 31/20 31/23 33/10 37/7 43/21 56/19 65/25 68/13 72/6 101/13 111/24 113/17	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22 26/4 26/10 February 16 [1] 26/10 February 2009 [1] 22/22 fee [3] 50/11 72/9 72/11 feeding [2] 146/14 146/19 feel [5] 49/22 138/3 140/7 152/24 157/12	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finsh [1] 18/10 firm [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1 102/7 103/1 103/25 106/13 106/14 106/16 107/5 107/10 113/9 115/7 125/18 125/21 126/13 129/25 130/2 133/1 133/2 152/5 154/13 163/1 163/14 163/17 first-time [2] 125/21 130/2	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formalised [1] 49/6 formaliged [3] 51/4 51/9 107/23 forms [6] 9/8 66/22 67/19 116/4 117/12 119/11 fortunately [2] 86/13 160/10 forums [1] 151/23 forward [1] 87/20 found [6] 23/15 24/17	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1 fundamental [1] 64/22 funded [4] 50/3 51/22 53/4 54/22 funding [22] 50/4 50/16 50/18 51/10 51/13 51/16 51/21 52/1 52/4 52/23 53/7 53/10 53/13 53/17	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10 15/10 34/18 36/19 45/12 53/18 54/24 57/20 64/6 65/9 65/11 66/5 66/7 66/10 66/12 66/25 72/15 72/17 80/3 80/23 89/21 90/21 97/25 100/2 100/2 109/10 120/23 122/11 122/24 123/1 125/6 135/19 138/15
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12 faces [1] 1/12 facilitate [4] 53/12 86/8 92/17 166/4 facilitated [1] 53/15 fact [20] 4/3 24/15 31/20 31/23 33/10 37/7 43/21 56/19 65/25 68/13 72/6 101/13 111/24 113/17 117/23 126/18 130/24	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22 26/4 26/10 February 16 [1] 26/10 February 2009 [1] 22/22 fee [3] 50/11 72/9 72/11 feeding [2] 146/14 146/19 feel [5] 49/22 138/3 140/7 152/24 157/12 feeling [2] 139/14	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 firm [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1 102/7 103/1 103/25 106/13 106/14 106/16 107/5 107/10 113/9 115/7 125/18 125/21 126/13 129/25 130/2 133/1 133/2 152/5 154/13 163/1 163/14 163/17 first-time [2] 125/21 130/2 firstly [1] 68/22	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formalised [1] 49/6 formaliged [3] 51/4 51/9 107/23 forms [6] 9/8 66/22 67/19 116/4 117/12 119/11 fortunately [2] 86/13 160/10 forums [1] 151/23 forward [1] 87/20 found [6] 23/15 24/17 82/22 83/25 156/2	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1 fundamental [1] 64/22 funded [4] 50/3 51/22 53/4 54/22 funding [22] 50/4 50/16 50/18 51/10 51/13 51/16 51/21 52/1 52/4 52/23 53/7 53/10 53/13 53/17 53/18 54/12 54/14 79/6 133/23 149/3	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10 15/10 34/18 36/19 45/12 53/18 54/24 57/20 64/6 65/9 65/11 66/5 66/7 66/10 66/12 66/25 72/15 72/17 80/3 80/23 89/21 90/21 97/25 100/2 100/2 109/10 120/23 122/11 122/24 123/1 125/6 135/19 138/15 140/7 155/6 161/7
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12 faces [1] 1/12 facilitate [4] 53/12 86/8 92/17 166/4 facilitated [1] 53/15 fact [20] 4/3 24/15 31/20 31/23 33/10 37/7 43/21 56/19 65/25 68/13 72/6 101/13 111/24 113/17 117/23 126/18 130/24 132/16 139/17 158/17	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22 26/4 26/10 February 16 [1] 26/10 February 2009 [1] 22/22 fee [3] 50/11 72/9 72/11 feeding [2] 146/14 146/19 feel [5] 49/22 138/3 140/7 152/24 157/12 feeling [2] 139/14 150/21	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 firm [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1 102/7 103/1 103/25 106/13 106/14 106/16 107/5 107/10 113/9 115/7 125/18 125/21 126/13 129/25 130/2 133/1 133/2 152/5 154/13 163/1 163/14 163/17 first-time [2] 125/21 130/2 firstly [1] 68/22 fit [1] 137/10	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formalised [1] 49/6 formaliged [3] 51/4 51/9 107/23 formed [3] 51/4 51/9 107/23 forms [6] 9/8 66/22 67/19 116/4 117/12 119/11 fortunately [2] 86/13 160/10 forums [1] 151/23 forward [1] 87/20 found [6] 23/15 24/17 82/22 83/25 156/2 166/16	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1 fundamental [1] 64/22 funded [4] 50/3 51/22 53/4 54/22 funding [22] 50/4 50/16 50/18 51/10 51/13 51/16 51/21 52/1 52/4 52/23 53/7 53/10 53/13 53/17 53/18 54/12 54/14 79/6 133/23 149/3 163/11 163/12	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10 15/10 34/18 36/19 45/12 53/18 54/24 57/20 64/6 65/9 65/11 66/5 66/7 66/10 66/12 66/25 72/15 72/17 80/3 80/23 89/21 90/21 97/25 100/2 100/2 109/10 120/23 122/11 122/24 123/1 125/6 135/19 138/15 140/7 155/6 161/7 161/18 164/3
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12 face [1] 1/12 facilitate [4] 53/12 86/8 92/17 166/4 facilitated [1] 53/15 fact [20] 4/3 24/15 31/20 31/23 33/10 37/7 43/21 56/19 65/25 68/13 72/6 101/13 111/24 113/17 117/23 126/18 130/24 132/16 139/17 158/17 factor [26] 17/18 23/4	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22 26/4 26/10 February 16 [1] 26/10 February 2009 [1] 22/22 fee [3] 50/11 72/9 72/11 feeding [2] 146/14 146/19 feel [5] 49/22 138/3 140/7 152/24 157/12 feeling [2] 139/14	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finsh [1] 18/10 firm [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1 102/7 103/1 103/25 106/13 106/14 106/16 107/5 107/10 113/9 115/7 125/18 125/21 126/13 129/25 130/2 133/1 133/2 152/5 154/13 163/1 163/14 163/17 first-time [2] 125/21 130/2 firstly [1] 68/22	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formalised [1] 49/6 formaliged [3] 51/4 51/9 107/23 forms [6] 9/8 66/22 67/19 116/4 117/12 119/11 fortunately [2] 86/13 160/10 forums [1] 151/23 forward [1] 87/20 found [6] 23/15 24/17 82/22 83/25 156/2	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1 fundamental [1] 64/22 funded [4] 50/3 51/22 53/4 54/22 funding [22] 50/4 50/16 50/18 51/10 51/13 51/16 51/21 52/1 52/4 52/23 53/7 53/10 53/13 53/17 53/18 54/12 54/14 79/6 133/23 149/3	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10 15/10 34/18 36/19 45/12 53/18 54/24 57/20 64/6 65/9 65/11 66/5 66/7 66/10 66/12 66/25 72/15 72/17 80/3 80/23 89/21 90/21 97/25 100/2 100/2 109/10 120/23 122/11 122/24 123/1 125/6 135/19 138/15 140/7 155/6 161/7
50/16 75/10 75/24 133/11 160/23 164/13 external [1] 6/15 extract [2] 75/21 144/24 extrapolate [2] 81/2 81/9 extrapolations [1] 83/1 extremely [4] 60/21 79/8 93/23 146/3 F face [5] 13/6 66/5 66/5 67/12 67/12 face-to-face [2] 66/5 67/12 face [1] 1/12 facilitate [4] 53/12 86/8 92/17 166/4 facilitated [1] 53/15 fact [20] 4/3 24/15 31/20 31/23 33/10 37/7 43/21 56/19 65/25 68/13 72/6 101/13 111/24 113/17 117/23 126/18 130/24 132/16 139/17 158/17 factor [26] 17/18 23/4	142/14 far [28] 10/8 13/19 13/21 14/12 14/18 21/25 38/24 38/25 46/19 47/13 52/18 56/4 72/5 74/11 81/16 83/5 88/23 93/14 96/14 114/22 125/4 126/4 131/1 140/2 146/22 157/13 159/22 169/4 fatal [1] 158/2 fate [1] 53/8 fault [1] 139/17 favour [2] 62/20 141/10 February [3] 22/22 26/4 26/10 February 16 [1] 26/10 February 2009 [1] 22/22 fee [3] 50/11 72/9 72/11 feeding [2] 146/14 146/19 feel [5] 49/22 138/3 140/7 152/24 157/12 feeling [2] 139/14 150/21	find [12] 29/4 72/22 125/20 127/14 136/15 144/2 148/8 148/12 148/14 148/16 153/17 159/6 finding [1] 22/24 findings [2] 25/9 132/21 fine [1] 51/1 finish [1] 18/10 firm [1] 6/15 first [42] 1/6 12/3 12/5 15/5 19/5 20/23 23/14 46/20 54/1 56/19 69/3 72/20 74/16 77/3 86/23 93/12 93/23 93/23 97/9 102/1 102/7 103/1 103/25 106/13 106/14 106/16 107/5 107/10 113/9 115/7 125/18 125/21 126/13 129/25 130/2 133/1 133/2 152/5 154/13 163/1 163/14 163/17 first-time [2] 125/21 130/2 firstly [1] 68/22 fit [1] 137/10	forgot [1] 34/25 form [32] 17/8 17/13 41/17 42/23 43/15 46/20 50/20 58/21 61/1 61/20 65/4 66/8 67/3 69/23 70/13 91/13 92/7 92/11 92/11 92/19 92/25 93/4 93/24 110/1 121/10 139/16 141/6 145/6 145/9 145/22 145/24 146/5 formal [3] 33/20 92/8 96/25 formalised [1] 49/6 formalised [1] 49/6 formaliged [3] 51/4 51/9 107/23 formed [3] 51/4 51/9 107/23 forms [6] 9/8 66/22 67/19 116/4 117/12 119/11 fortunately [2] 86/13 160/10 forums [1] 151/23 forward [1] 87/20 found [6] 23/15 24/17 82/22 83/25 156/2 166/16	front [1] 35/19 fulfilled [1] 59/11 fulfilled [1] 59/11 full [3] 14/7 114/7 144/22 fully [6] 3/10 29/21 97/7 97/10 105/23 116/21 function [10] 47/11 57/21 57/24 89/13 89/17 90/22 96/5 98/6 98/7 98/12 functioning [1] 45/21 functions [1] 46/10 fund [9] 54/25 73/8 73/9 73/13 73/19 75/12 75/18 79/7 134/1 fundamental [1] 64/22 funded [4] 50/3 51/22 53/4 54/22 funding [22] 50/4 50/16 50/18 51/10 51/13 51/16 51/21 52/1 52/4 52/23 53/7 53/10 53/13 53/17 53/18 54/12 54/14 79/6 133/23 149/3 163/11 163/12	generally [2] 50/7 160/13 generate [2] 33/18 78/12 generated [2] 50/7 148/22 generic [2] 147/3 147/4 genes [1] 94/10 genetic [7] 91/14 91/25 92/6 92/22 93/19 94/20 100/3 Genetics [1] 92/19 genuine [1] 124/10 genuinely [2] 4/1 128/4 get [39] 4/12 13/10 15/10 34/18 36/19 45/12 53/18 54/24 57/20 64/6 65/9 65/11 66/5 66/7 66/10 66/12 66/25 72/15 72/17 80/3 80/23 89/21 90/21 97/25 100/2 100/2 109/10 120/23 122/11 122/24 123/1 125/6 135/19 138/15 140/7 155/6 161/7 161/18 164/3

(52) explains... - gets

	,				
G	goes [3] 146/4 146/8	157/16 160/14 164/5	haemorrhage [3]	125/4 125/15 131/21	95/25 126/20 140/15
getting [11] 52/23	150/20	166/6	101/24 103/23 113/25	166/14	140/25 141/6 141/12
62/16 66/4 67/11	going [45] 6/5 10/25	groups [7] 12/25	haemostasis [2]	having [20] 4/23 4/24	149/1 149/12 150/6
81/18 97/16 97/17	13/7 14/19 19/19	120/7 128/13 128/16	105/11 133/3	18/19 21/6 21/20 32/4	161/21 161/22 161/25
138/11 147/1 155/7	29/23 34/4 35/4 40/12	129/14 129/16 159/6	half [18] 9/25 12/8	36/3 36/8 40/20 51/25	163/12 164/2
	42/17 45/20 67/16	growing [1] 37/5	21/11 21/22 25/6	97/13 99/5 101/19	healthcare [2] 24/4
157/1 Cianama da 141	70/13 80/22 82/6	guerilla [2] 149/24	45/12 55/16 55/17	109/15 116/24 121/20	79/5
Giangrande [1]	84/17 86/15 88/3	150/18	57/23 64/18 77/15	130/5 141/6 158/17	hear [4] 3/7 8/20
169/13	89/16 89/23 90/20	guerrilla [1] 149/16	83/2 101/11 110/17	167/8	26/14 85/23
give [24] 24/7 57/4	92/4 93/18 93/25	guide [1] 7/9	131/22 137/24 166/21	HAY [25] 2/1 2/3	heard [5] 39/18 74/1
61/2 63/6 66/19 72/3	99/25 104/4 104/22	guidelines [1] 82/3	166/24	14/11 36/2 45/20	159/5 159/10 161/10
89/8 90/18 91/6 92/7	108/6 108/11 112/23	gut [2] 29/13 36/11	hand [3] 102/18	71/16 71/18 71/24	hearing [3] 1/14
94/13 98/21 115/21	115/4 117/4 126/11	gym [1] 137/17	124/22 138/11	75/6 86/21 86/23	169/11 169/18
128/16 131/11 131/22	127/15 129/3 129/19		handful [4] 45/21	86/24 87/14 88/1	heart [1] 127/4
134/10 154/16 155/10	138/7 139/18 139/22	H	47/22 88/1 131/21	102/22 108/16 109/25	heat [4] 122/3 155/17
157/9 165/12 168/7	140/16 146/24 151/2	had [220]	handle [2] 61/4 61/4	111/23 115/2 131/23	155/25 160/11
168/9 168/23	151/4 155/25 161/1	hadn't [4] 27/2 98/17	handled [2] 168/15	132/10 142/13 154/8	heat labile [1] 160/11
given [23] 1/8 15/11	gone [8] 29/3 71/3	106/20 168/12	168/16	167/21 170/2	heat-treated [1] 122/3
34/18 54/9 62/8 65/23	72/11 104/22 106/20	haematologist [2]	handling [2] 13/24	HBV [1] 123/7	height [1] 153/11
66/17 72/13 74/23	106/20 108/10 122/17	101/13 123/4	95/5	HCDO0000002 [1]	held [15] 30/1 45/23
75/1 87/15 92/4	good [23] 1/3 1/4 3/24		hang [1] 147/24	71/9	58/13 60/6 61/11
101/20 116/19 122/7	92/21 95/8 97/23	102/4	hangs [1] 136/18	HCDO0000131 [2]	70/10 71/14 71/17
122/14 130/25 145/5	100/24 100/25 126/17	haemophilia [89] 5/18		20/25 21/11	72/5 73/1 75/21 76/3
154/4 164/17 167/11	133/17 137/11 137/15	5/18 8/6 10/16 13/18	150/14 154/22 155/20	HCDO0000133 [1]	78/21 145/8 151/1
168/11 168/13	138/14 154/4 157/7	14/3 14/4 14/14 15/3	happened [8] 5/2 10/7	2/16	help [8] 34/1 40/19
gives [4] 17/20 81/16	157/9 157/10 157/13	15/15 17/15 22/23	30/14 30/15 34/6 48/2	HCDO0000254 [1]	43/7 79/6 140/23
100/13 127/19		22/25 23/8 23/16		4/14	
giving [10] 13/5 48/21	159/4 159/11 160/9	24/13 28/20 29/20	75/19 155/22		141/4 148/8 166/3
50/24 78/20 98/25	161/3 164/9		happening [2] 64/19	HCDO000266 [1]	helped [1] 52/7
101/23 124/7 146/7	got [21] 10/24 31/10	29/25 31/18 31/25	148/5	143/15	helpful [6] 58/24
150/6 167/25	40/2 49/23 53/1 63/8	33/17 33/22 37/24	happens [4] 13/8	HCV [14] 73/25 75/5	60/22 72/16 95/8
glycol [3] 166/23	67/22 81/16 81/23	40/22 41/1 42/17 44/6	49/12 93/13 150/8	76/8 82/21 83/11	138/4 168/24
167/4 167/8	95/1 97/14 98/11	45/24 46/3 46/8 47/1	happy [2] 27/7 94/15	83/16 83/19 83/20	helps [1] 55/23
GMC [2] 149/18	102/1 106/1 115/2	47/5 47/6 48/9 48/12	hard [1] 108/16	83/20 83/23 84/3	Hemostasis [1] 133/2
149/20	122/11 124/24 131/6	48/14 48/15 48/19	hardly [2] 137/1 140/6		Henry [1] 76/10
go [82] 6/4 11/7 11/8	131/20 137/2 147/20	51/7 54/13 56/11	harm [2] 152/15 153/5		hep [1] 76/20
11/12 11/13 11/21	GP [6] 61/3 85/18	56/15 56/24 57/1	harm's [1] 121/20	25/3 25/4 41/8 56/21	hep C [1] 76/20
12/1 12/11 12/21 13/4	85/20 86/2 86/3	57/10 59/18 63/9	harmonised [1] 59/7	71/20 101/12 101/13	hepatitis [73] 26/22
13/22 13/25 15/14	101/10	63/13 63/14 70/11	has [65] 6/20 6/25	113/5 113/5 117/17	51/11 72/23 74/23
16/1 20/10 20/11	grade [3] 149/16	73/15 74/10 76/8	12/3 12/23 18/2 22/1	117/22 132/25 142/20	75/1 76/13 76/24 77/8
20/18 21/2 21/10	149/24 150/18	77/17 78/10 80/5 86/8	23/15 26/9 26/12	148/5 148/14 148/15	78/4 81/21 82/16
23/18 24/5 26/9 26/11	gradual [1] 111/9	94/1 102/3 102/13	31/20 32/16 33/1 41/6	148/16	89/16 91/6 95/23 96/1
29/16 30/9 33/12	grant [2] 04/0 04/0	102/15 103/4 103/5		he's [1] 148/19	96/2 96/2 96/17 97/1
35/14 35/19 35/20	grants [7] 53/5 53/6	103/21 105/11 106/18	50/16 51/21 54/14	headed [1] 82/16	97/3 97/21 98/4 98/13
35/23 42/14 42/19	53/23 54/4 54/7 54/9	109/15 109/17 123/25	54/19 56/5 58/9 67/6	heading [5] 14/1	98/17 98/18 98/20
46/4 47/17 60/14	54/24	136/18 137/7 137/23	67/11 70/3 70/6 71/3	35/25 42/20 102/19	99/2 99/3 99/8 99/21
60/19 61/2 63/18	grapevine [1] 2/24	139/2 139/8 140/11	71/18 75/4 84/3 86/6	102/24	123/8 123/15 123/15
64/12 71/12 74/15	grateful [1] 167/25	142/1 143/6 143/7	88/9 90/6 90/9 92/14	headings [1] 11/25	123/22 124/9 124/10
76/15 77/14 78/11	great [5] 7/6 113/12	143/13 143/18 149/13	94/15 94/24 95/24	headline [1] 104/25	124/15 124/16 124/19
80/25 83/1 85/15	147/21 157/18 157/25	152/7 156/9 164/18	98/16 104/22 105/1	health [59] 7/1 7/8	124/20 124/21 124/22
88/10 91/12 91/14	greater [1] 123/20	165/5 166/9 167/16	108/16 112/12 116/12	7/16 7/21 11/15 13/13	125/2 126/15 126/21
91/18 91/20 92/8	greatest [1] 111/24	168/17	119/17 121/6 124/6	14/8 17/21 21/8 22/21	126/24 127/3 127/10
93/21 94/23 100/19	greatly [3] 107/14	haemophilia A [5]	126/20 131/1 135/2	23/19 28/9 28/14	127/12 127/17 127/21
102/18 103/7 103/11	151/15 153/22	57/1 94/1 103/4	136/5 138/4 146/6	28/16 31/22 32/19	127/25 129/17 129/18
106/11 107/25 108/11	Greaves [1] 121/1	109/15 109/17	146/9 151/25 153/7	32/25 33/5 34/15 35/9	130/6 130/15 130/18
122/21 125/7 125/17	grey [2] 116/5 117/22	haemophilia B [1]	153/20 154/11 164/12	37/19 39/10 39/15	135/15 135/23 138/2
130/9 137/12 137/17	grounds [1] 150/3	103/5	164/25 165/7 165/8	48/10 50/17 51/14	138/12 149/17 158/9
137/24 138/15 143/3	group [22] 28/9 31/7	haemophiliac [1]	165/17 167/1	51/16 51/20 52/5	158/11 159/18 159/19
146/12 146/16 147/1	31/10 52/20 64/14	106/18	hasn't [2] 10/7 50/18	52/17 52/19 52/21	159/20 160/5 160/7
	64/17 65/2 65/23	haemophiliacs [3]	hasten [1] 85/13	52/24 53/12 56/2	160/9 160/11 160/15
149/4 149/4 152/4	71/12 74/8 83/21	103/16 103/20 136/11	hat [1] 53/3	57/18 57/22 70/4 70/7	168/20
152/8 152/10 161/19 164/4 164/6	84/10 95/9 98/9 103/4	haemophilic [2] 43/3	have [285]	75/14 78/25 80/10	hepatitis A [1] 96/2
104/4 104/0	103/5 126/14 154/6	108/19	haven't [5] 100/17	81/1 81/11 84/21	hepatitis B [7] 77/8
					500 BB

(53) getting - hepatitis B

11	history [17] 9/22	76/22 77/14 78/18	I couldn't [2] 49/8	164/21	169/6
<u>H</u>	33/10 34/19 57/4 78/2	79/6 81/16 82/6 91/19	157/22	I might [1] 47/15	1 thought [3] 65/8
hepatitis B [6] 96/2	81/7 83/16 83/18	92/1 95/7 103/11		I need [1] 131/5	126/22 159/9
123/8 124/22 125/2	84/16 85/8 90/19	104/7 126/15 127/1		I never [2] 68/5 142/6	I told [2] 65/23 160/3
158/9 158/11	97/15 97/22 99/6	127/7 130/3 131/19		<b>i no [1]</b> 138/19	I took [2] 52/2 52/10
hepatitis C [41] 26/22	108/10 111/4 130/11	133/25 135/18 140/7		I note [3] 45/8 86/15	I understand [10]
72/23 74/23 75/1	HIV [32] 26/21 89/7	142/21 147/14 150/5	l didn't [1] 157/12	131/7	21/15 22/6 32/5 88/14
76/13 76/24 78/4	97/1 97/5 97/7 97/14	151/16 154/17 154/22		I only [1] 101/2	95/17 96/13 130/20
81/21 82/16 91/6	97/19 99/4 100/5	155/19 158/3 161/7		I perfectly [2] 151/15	145/19 146/18 154/7
95/23 96/1 96/17 97/1	100/10 100/14 100/22		I don't [26] 17/6 19/9	151/17	I understand it [3]
97/3 97/21 98/4 98/13	101/5 101/9 101/10	however [2] 84/5 84/9	24/5 27/7 30/8 44/9	I personally [1]	5/20 29/24 78/17
98/17 98/18 98/20	101/11 111/20 111/25	HPA [2] 10/18 33/14	45/1 51/12 56/3 71/5	100/16	I want [4] 2/3 56/10
99/2 99/3 99/8 99/21 123/15 124/19 124/21	123/14 129/15 129/16	HSC197630 [1] 48/11	80/10 92/21 93/2	I put [1] 135/18	76/7 161/6
126/15 126/21 127/25	133/16 135/23 153/12	HSG9330 [1] 48/17	94/24 122/8 131/2	I refer [1] 143/8	I wanted [6] 40/10
129/17 129/18 130/15	153/22 157/5 157/25	HSOC [1] 137/19	133/22 134/24 135/3	I remember [2] 14/18	71/8 101/17 101/25
130/18 135/23 138/2	158/14 160/10 160/11	HSOC0001265 [1]	142/21 149/20 152/22	38/16	139/2 156/5
138/12 149/17 160/7	160/15 161/2	152/3		I right [1] 114/14	I was [20] 3/5 4/8 58/2
168/20	HIV infection [1]	HSOC0020017 [1]		I said [1] 150/20	59/9 89/21 101/13
hepatitis-reduced [3]	111/20	148/24		I saw [2] 38/18 91/1	112/15 122/9 122/10
124/15 159/18 159/19	HIV testing [2] 97/1	huge [1] 156/18		I say [1] 99/8	123/23 130/7 130/21
hepatologist [1]	97/7	Human [2] 44/12	l entirely [1] 62/22	I see [6] 98/10 130/8	133/8 139/17 140/5
89/14	hold [8] 44/7 59/5	88/22 hush and 541, 453/02	l ever [1] 133/3	154/24 157/3 163/3	140/13 142/19 142/22
hepatologists [1]	70/25 72/6 85/6 85/9		I explained [1] 148/14		152/17 164/16
99/23	86/9 108/6	hyperlink [1] 63/14		l seem [1] 25/2	I wasn't [2] 44/2
hepatology [1] 96/4	holders [1] 49/23	hypothetical [1] 93/6		I shall [1] 87/15 I should [3] 82/1	132/23 I will [4] 41/4 90/17
her [10] 56/20 56/21	holding [1] 69/21			104/18 168/23	90/19 123/19
57/16 57/25 122/12	holds [2] 85/5 145/6 Holland [1] 133/11	l actually [2] 148/3	I forgot [1] 34/25 I get [1] 138/15	<b>I showed [1]</b> 148/13	<b>I won't [1]</b> 13/9
131/11 131/12 142/8	home [12] 105/18	148/7		I started [1] 18/9	<b>I worry [1]</b> 3/9
142/11 143/20	105/25 112/12 112/14	l agree [2] 108/3	I had [10] 4/6 37/7	I suspect [4] 3/3 32/2	I would [12] 5/9 87/4
here [19] 1/11 1/17	112/17 113/21 114/13	113/15	62/17 64/13 66/6	131/16 149/11	91/5 91/6 97/2 98/12
4/23 10/6 10/13 11/22	114/19 114/20 132/13			I take [1] 1/22	100/19 113/17 138/1
28/7 29/24 47/17	132/17 133/20	l also [1] 128/9		I think [98] 3/16 4/11	138/22 156/17 167/14
72/13 77/3 107/5	homozygote [1] 25/4	l am [3] 60/18 138/2	I hasten [1] 85/13	5/17 15/6 16/7 16/10	l'd [2] 105/14 110/20
108/24 131/11 131/17	homozygotes [2] 10/8		I have [10] 47/16	20/24 25/4 28/1 32/14	<b>I'II [7]</b> 1/19 57/4 70/8
145/19 168/1 168/3 168/22	18/19	I anticipate [1] 82/6	61/24 81/14 106/2	34/16 34/21 35/16	82/12 102/6 106/3
hereditary [1] 94/14	homozygous [1] 10/1	I appreciate [4] 91/23	132/18 146/5 151/24	35/18 37/21 38/3 40/1	109/16
heterozygotes [1]	honest [11] 16/10	111/6 120/25 153/14	153/5 153/6 167/19	48/2 48/4 48/11 48/13	I'm [38] 1/22 3/21 13/7
10/3	27/9 49/8 53/8 55/21	I approached [1]	I haven't [1] 131/21	49/6 49/7 49/11 51/23	13/21 27/20 35/4
heterozygous [1]	96/22 97/9 110/20	52/21	I hear [1] 3/7	53/19 53/23 56/19	40/12 40/18 43/20
25/4			I heard [1] 159/5	58/23 58/23 59/4	45/6 45/8 45/20 47/13
Hey [1] 44/10	honestly [3] 4/9 80/7		I hope [1] 168/24	59/16 59/20 59/23	48/6 49/7 49/10 51/19
high [9] 4/7 7/3 7/13		l asked [1] 123/10	l inherited [1] 157/16	69/1 72/4 72/4 72/25	86/15 88/23 93/15
8/25 9/3 37/2 118/7	hope [2] 121/20	l be [1] 13/8	<b>I just [8]</b> 41/14 73/10	75/13 75/23 82/8 85/4	96/8 98/1 100/21
120/3 128/3	168/24	l became [2] 46/25 57/7	95/18 96/10 100/5	88/9 88/21 89/25	104/4 104/21 108/5
high-purity [2] 4/7	hoping [1] 40/18	5/// I been [1] 5/9	117/2 126/9 154/16	92/24 94/21 94/23	108/6 108/14 112/23
120/3	hospital [13] 3/1 8/24 37/12 37/15 61/3 73/1	l being [1] 5/9	I knew [1] 140/2 I know [16] 43/23 44/2	94/25 96/21 98/2 99/2 99/12 100/7 101/2	128/24 129/4 138/7 138/10 143/1 151/4
high-risk [1] 9/3		I bought [1] 56/20	45/6 64/2 85/4 85/20	103/11 104/25 107/4	153/15 160/25 168/25
higher [4] 46/7 74/18		I came [1] 144/20	86/11 89/12 106/9	107/8 108/1 108/7	l've [21] 31/10 47/19
128/1 128/2	147/18	I can [10] 72/2 113/24	111/4 127/15 133/18	108/23 109/9 109/22	51/24 52/25 54/5 54/7
Hill [5] 3/7 15/1 27/11	hostile [1] 150/4	114/7 116/5 129/1	136/6 149/2 167/13	110/8 110/13 110/20	90/19 101/9 101/14
40/16 142/20	hour [6] 45/12 64/18	131/8 146/23 148/9	168/1	110/24 112/6 112/19	102/1 105/9 108/10
him [5] 15/2 37/11	87/10 116/4 131/22	153/23 162/10	l look [1] 87/19	113/2 113/4 114/13	115/2 115/3 117/9
139/1 148/13 148/14	148/10	I can't [10] 3/19 4/9	I made [2] 65/10	114/15 116/4 119/4	117/10 131/6 131/20
hindsight [1] 144/5	hour one [1] 148/10	16/7 19/13 32/13	65/20	119/6 122/2 123/5	135/20 149/20 153/18
his [11] 23/8 24/20	house [5] 56/8 60/16	48/17 66/11 96/19	I may [3] 1/6 86/21	126/7 131/7 132/23	I've probably [1]
25/6 70/19 113/3	64/15 77/20 101/8	141/11 146/21	87/3	136/2 140/19 141/9	31/10
117/16 133/6 137/2 148/11 148/16 148/19	how [46] 3/20 4/9 9/16		I mean [11] 14/17	144/18 147/12 150/17	iatrogenic [1] 153/25
historic [2] 58/25	13/2 24/8 32/8 32/8	I conducted [1] 118/7	27/23 36/15 89/1	150/24 152/20 153/9	idea [3] 133/17 135/7
59/25	36/9 38/16 49/22 50/3		89/24 93/12 94/23	158/15 159/8 159/14	138/20
	55/4 56/23 63/4 76/20	157/13	100/16 101/7 146/24	160/20 162/18 168/4	identification [2]
	l				natitis B , identification

(54) hepatitis B... - identification

	1				
1	impossible [2] 66/6	116/9	inherited [3] 46/8	111/1 112/10	16/15 17/6 44/2 47/5
identification [2]	81/13	indication [1] 129/7	46/15 157/16	international [1]	50/15 54/16 57/8
28/16 78/23	impractical [1] 68/17	individual [17] 7/15	inhibitor [1] 55/2	56/18	68/11 79/8 115/19
identified [10] 6/25	impression [5] 72/3	7/16 7/20 7/22 8/1 8/6	initial [1] 8/17	internationally [1]	122/12 141/18 162/17
7/2 11/5 11/6 20/13	72/13 100/12 138/16	17/23 39/18 95/13	initially [4] 51/4 56/22	115/18	163/16 166/9
28/13 29/11 31/20	140/10	95/14 135/3 135/5	56/25 160/2	interpretation [3] 25/9	involvement [8] 49/25
78/3 113/4	improve [1] 165/2	138/8 139/6 142/17	initials [1] 47/2	110/8 118/1	51/15 51/17 76/7 76/8
1	improved [5] 37/18	150/9 155/5	initiation [1] 46/12	interrupted [1] 69/21	122/5 134/9 146/2
identifies [1] 12/25	104/12 105/22 106/24	individually [3]	initiative [1] 133/20	interrupting [1] 129/4	involving [2] 122/23
identify [9] 5/10 28/17	107/15	120/19 142/6 146/17	inquiry [16] 1/16 75/6	interruption [1]	130/1
31/15 40/6 76/20	improves [1] 155/14	individuals [7] 6/12	81/22 84/19 86/25	163/24	ire [1] 140/22
76/23 82/7 95/21	imputed [1] 82/19	7/9 9/3 33/3 33/8 35/7	131/13 131/14 149/23	interruptions [1]	Ireland [1] 102/14
128/21	inadequate [4] 121/16		150/6 150/23 150/25	163/23	Ironside [1] 41/7
identifying [1] 95/13	121/18 133/15 161/5	industry [3] 50/23	151/2 151/6 151/11	intervals [3] 62/2	irregular [1] 62/2
ie [3] 39/6 65/5 79/18	inception [1] 74/9	53/4 54/25	153/7 153/16	63/21 115/21	irregularly [1] 77/12
if [178]	incidence [1] 159/25	inexpensive [2] 4/2	Inquiry's [2] 58/11	intervention [4]	irrelevant [1] 145/10
ii [1] 33/8	incidentally [2] 82/1	4/3	82/11	116/10 116/12 117/6	Ismail [1] 169/13
<b>III [1</b> ] 113/9	120/11	infection [5] 74/24	insecure [1] 53/7	127/5	isn't [4] 89/1 108/2
illness [1] 153/25	incidents [10] 6/8	111/20 111/25 123/7	insertions [1] 15/13	interventional [9]	110/19 110/23
illustrates [1] 116/5	10/12 10/21 12/19	130/4	insight [1] 168/12	59/3 115/9 115/13	isolated [1] 150/12
imagine [3] 34/18	14/14 16/3 16/8 38/14	infectious [2] 127/12	insignificant [1] 112/8		issue [19] 13/11 30/3
124/12 162/10	39/16 127/25	127/20	insist [1] 101/9	118/5 120/15 120/23	30/12 34/5 40/10 44/3
imagined [1] 150/5	include [6] 20/3 46/10		insofar [2] 30/2	interventionist [3]	71/7 73/4 75/10 87/4
immediate [3] 15/4	47/5 47/21 96/6 97/13	130/21	124/10	117/13 117/15 117/19	88/2 104/4 121/17
62/24 63/8	included [11] 9/25	Infirmary [1] 91/13	instances [1] 28/15	interventions [1]	123/7 139/1 149/3
immediately [1] 33/16	10/15 20/13 48/4		instead [1] 71/21	116/8	154/14 155/25 159/7
imminent [1] 57/16		influence [6] 134/21	••		
immune [5] 118/8	60/12 61/25 63/16	140/17 141/7 141/9	instruction [1] 37/1	into [20] 16/18 39/5	issued [1] 82/2
119/25 158/9 158/10	66/21 74/9 81/14 83/9	150/5 150/23	instructions [1] 29/5	48/14 50/9 55/2 58/19	issues [4] 35/25 58/9
158/12	includes [2] 81/23	influenced [2] 117/22	instrument [3] 36/19	60/10 75/24 78/17	93/10 135/8
immunodeficiency [1]	95/3	133/4	37/3 37/10	79/7 108/10 129/13	it'd [1] 113/11
14/6	including [10] 6/17	inform [4] 5/7 16/12	instruments [11] 9/2	137/4 140/17 150/6	it'll [1] 106/5
immunoglobulin [1]	8/16 23/4 23/23 28/10	25/10 60/10	28/15 29/14 35/2	152/13 157/1 159/11	it's [85] 2/17 2/18 6/9
166/25	68/13 82/3 96/8	informal [1] 49/6	36/22 37/17 37/20	168/12 168/19	12/19 15/3 15/3 15/21
immunologists [2]	111/22 123/22	informally [1] 133/19	39/12 39/13 39/24	intolerance [1] 118/8	27/1 27/1 27/13 33/13
14/3 14/5	income [2] 50/6 53/10	information [57] 1/13	40/8	intracranial [6]	35/16 40/16 44/19
impact [1] 111/24	incompetent [1]	10/13 11/5 11/9 11/14	insurance [5] 13/10	109/20 113/4 113/9	44/20 46/5 47/4 50/4
imparting [1] 100/22	151/21	11/18 11/24 13/5	13/12 97/17 101/6	113/15 113/25 114/22	55/22 57/22 62/22
implement [3] 3/5	incomplete [1] 82/24	13/18 14/2 15/12	101/8	introduce [2] 99/5	72/11 72/16 82/14
3/10 3/14	increase [4] 111/16	16/16 18/6 18/8 18/14	Insurers [1] 13/12	163/12	82/15 82/16 87/1 87/6
Implementation [1]	141/2 149/9 160/19	24/3 25/23 30/1 34/1		introduced [12] 1/9	87/19 91/15 92/20
2/18	increased [3] 31/22	35/5 36/7 57/11 58/12	intensification [1]	48/18 105/18 107/3	94/19 95/8 99/20
implemented [1] 24/9	101/23 165/7	59/9 59/14 60/14	133/16	107/7 117/23 122/21	100/7 102/12 103/11
implicated [18] 6/22	increases [1] 110/16	60/15 62/12 62/16	intensity [1] 165/2	124/14 132/12 155/23	105/7 105/12 105/22
8/10 9/12 9/23 11/4	increasing [5] 65/5	66/21 67/4 69/15 71/2	intent [1] 117/21	160/17 160/18	106/4 106/23 106/23
18/3 18/4 19/16 22/8	107/13 107/23 125/10	71/14 71/19 72/23	intention [2] 43/19	introduction [3]	109/21 110/16 110/19
23/10 24/14 25/7 28/4	138/3	73/1 78/21 79/2 81/24	69/22	104/11 107/20 129/9	111/1 112/8 113/8
28/13 29/4 29/21	increasingly [1] 109/3	91/16 91/19 92/4 96/3	interactions [1] 67/13	invariably [4] 96/15	113/10 113/13 114/9
40/22 144/12	increment [2] 112/6	98/20 121/10 122/6	interest [8] 52/16 53/1	96/15 99/13 145/2	116/14 118/17 119/17
	166/18	122/14 144/22 145/1	55/22 82/10 121/12	invasive [1] 100/4	119/19 121/17 130/20
implications [11] 13/3	incubating [1] 125/2	145/3 145/8 145/20		investigate [1] 93/17	131/3 131/3 131/15
15/24 39/20 94/12	incubation [1] 21/24	145/22 145/23 147/13		investigated [1] 89/14	
94/14 95/7 97/4 97/10	incurred [1] 4/5	161/7	147/5	investigation [2]	143/20 144/22 150/12
97/16 101/3 163/6	indeed [7] 43/18	informed [20] 4/23	interested in [2]	27/15 124/8	150/14 150/24 152/1
implied [4] 61/15	62/13 82/2 95/7 97/6	5/6 5/9 5/16 8/2 8/7	117/18 147/5	investigator [1]	152/3 152/8 152/19
61/15 69/14 70/15	135/4 168/22	15/22 15/23 18/3 42/5	interesting [4] 16/7	115/19	154/10 156/17 159/8
important [10] 18/23	indefinitely [1] 92/12	60/5 61/16 65/9 65/22	52/13 117/20 141/22	investigator-led [1]	161/12 162/16 164/1
34/25 53/14 67/19	independent [1]	69/20 107/23 115/22	interestingly [1]	115/19	165/25 166/18 167/12
94/19 114/3 125/12	127/16	157/14 157/21 159/13	141/21	invitation [1] 49/13	168/3 168/11 168/24
125/14 137/18 144/5	index [2] 27/15 89/9	informing [1] 22/23	interests [1] 152/14	invite [1] 87/5	italicised [1] 85/3
importantly [1] 62/23	indicate [1] 41/2	infrequently [1] 98/15		invoice [2] 71/21 72/9	
imported [2] 3/19	indicated [5] 41/7	Inga [1] 133/10	150/11	involve [1] 100/14	item [1] 113/9
30/20	67/24 68/7 114/10	Inga Marie Nilsson [1]		involved [16] 7/7	its [11] 10/22 34/19
		133/10			
L	L	L	L	L	L

(55) identification... - its

1	114/8 114/17 117/2	162/7 162/15 164/1	79/23 111/15 115/19	37/24 58/25 62/3 68/6	140/15 142/25 148/2
	117/4 120/6 126/9	167/7 167/13 168/1	163/4	79/24 90/24 92/25	148/13 153/18 157/23
its [9] 46/10 50/6	129/19 131/18 141/4	168/6 168/16 169/10	ledger [5] 144/18	93/4 128/2 133/17	167/8 168/3 168/5
51/6 55/17 55/23	143/22 145/10 145/12	knowing [1] 164/24	144/20 144/22 145/10	136/18 136/23 138/1	long-term [1] 167/8
57/13 57/19 117/25	152/7 152/10 154/16	knowledge [5] 45/22	145/22	138/22 155/16 164/20	longer [5] 34/15 39/11
166/24	162/15 164/4 164/19	54/15 106/5 133/21	ledgers [1] 144/14	166/7 168/17	64/23 70/7 138/20
itself [1] 56/11	165/12 166/2	158/15	Lee [1] 40/20	likelihood [1] 91/7	longest [1] 21/24
IX [4] 33/4 35/8		known [8] 5/15 24/21	left [3] 76/1 117/14	likely [12] 9/22 27/2	look [36] 6/5 8/3
107/14 144/15	K	38/17 56/23 97/11	155/24	27/4 74/11 77/11 78/9	10/20 10/25 11/24
J	keen [1] 124/12	97/20 112/1 132/25	legal [8] 1/14 87/8	84/4 84/5 131/15	19/22 25/16 25/16
	keep [3] 93/7 95/4	knows [2] 91/4 142/21		137/12 141/15 152/15	32/18 35/17 35/22
Jakob [13] 8/11 9/24	119/1	Kutowski [1] 141/13	146/20 149/10 152/1	limit [1] 88/19	41/9 51/11 63/18 76/9
10/4 16/23 18/15	keeping [3] 59/17		legislation [4] 59/2	limited [1] 51/3	76/13 78/18 81/21
22/12 24/12 24/25	95/15 143/25	L	59/6 59/8 141/22	line [1] 10/6	81/24 82/2 82/12
26/25 36/14 39/3	key [2] 5/17 72/23	labile [1] 160/11	lengthy [1] 9/15	lined [1] 68/4	82/16 82/21 82/22
39/16 135/23	kin [2] 41/18 42/10	lack [3] 6/2 37/17 53/9		lines [2] 23/13 146/13	
Jakob-Creutzfeldt [13]	kind [4] 26/15 54/22	LANGSTAFF [2]	81/20 81/20 84/5 99/2	link [1] 86/21	91/10 106/1 109/16
8/11 9/24 10/4 16/23	92/3 122/17	154/9 170/4	101/6 108/20 111/3	linked [1] 41/4	110/14 112/13 126/21
18/15 22/12 24/12	kinds [1] 92/1	large [7] 3/2 37/24	113/25 128/14 137/7	list [5] 34/13 41/1	130/13 148/15 152/4
24/25 26/25 36/14	Kingdom [3] 46/2	37/25 45/1 68/3 127/5	137/12 154/23 154/25	47/18 63/16 89/22	
39/3 39/16 135/23	48/13 102/16	168/18	160/8 167/1		look-back [12] 76/9 76/13 78/18 81/21
James [2] 41/7 73/15	knew [9] 9/20 16/19	largest [2] 31/7 31/10	let [5] 1/5 71/19 72/5	listed [1] 29/12 listening [4] 87/9	81/24 82/2 82/16
James Ironside [1]	59/18 79/12 97/21	last [12] 17/25 18/5	143/22 157/17	108/16 168/5 169/9	82/21 82/22 84/20
41/7	101/13 130/10 133/12	23/13 40/3 70/19 71/3			126/21 130/13
January [4] 2/17 21/2	140/2	71/12 95/17 100/18	let's [2] 86/18 130/2	Lister [2] 141/13	
21/14 32/20	know [129] 1/8 3/12	103/2 143/24 161/6	letter [41] 2/6 2/17 3/13 3/13 4/16 6/7	141/15	looked [4] 2/6 21/5
January 1998 [1] 2/17	16/13 16/21 16/22	late [4] 59/15 77/9		lists [5] 33/18 33/19	42/23 127/23
January 2007 [1] 21/2	17/2 17/6 18/2 19/5	107/3 124/18	10/14 14/24 15/2	34/9 78/13 78/14	looked at [3] 21/5
Japan [1] 128/3			15/13 15/16 20/12	literature [2] 74/24	42/23 127/23
jointly [1] 73/17	25/1 26/22 26/24 32/8	late 1960s [1] 107/3	22/21 23/22 25/15	131/1	looking [23] 14/5 15/7
Jones [2] 132/18	36/17 43/23 44/2 44/4	later [11] 38/25 51/6	25/17 25/17 26/2 26/4	litigation [7] 139/3	26/24 44/22 44/23
132/25	44/10 45/3 45/6 46/19	107/21 111/22 122/20	27/10 27/13 28/6	139/18 139/21 140/16	
Journal [2] 102/4	47/8 47/15 49/4 51/12	128/8 130/5 132/13	28/22 29/24 30/8 30/9	140/18 142/8 150/18	109/18 109/24 110/10
105/10	55/25 56/3 57/21	143/18 162/7 168/9	31/16 32/19 33/12	little [30] 19/20 24/19	
judge [1] 141/9	59/25 62/7 62/17 62/22 63/10 64/2 64/9	latter [1] 146/18	33/14 35/5 40/16	25/5 26/21 34/16	
judgment [3] 116/6		latterly [3] 51/15	71/20 86/5 137/22	38/17 44/13 50/4	145/12 146/6 147/13
120/20 136/6	69/6 70/24 71/17	130/13 134/25	141/24 142/9 143/17	56/10 57/6 57/22	147/16 148/9 158/25
judicial [1] 149/9	71/19 72/6 79/12 80/3	launched [1] 81/20	143/20 148/25 152/6	58/24 61/1 72/7 76/2	looks [1] 31/6
Julia [1] 52/22	82/4 84/16 85/1 85/4	launching [1] 14/18	letters [4] 14/7 14/10	92/23 99/1 114/13	looming [1] 64/20
Julia Stallibrass [1]	85/17 85/20 86/11	law [1] 66/9	15/11 135/20	114/17 114/19 126/8	Lord [2] 47/23 133/6
52/22	88/24 89/5 89/8 89/12	lawyers [1] 138/19	level [10] 9/7 17/2	139/4 140/13 140/13	lose [1] 153/24
July [2] 5/23 73/12	90/15 90/17 90/20	lay [1] 121/10	17/3 38/10 48/20	144/5 148/4 150/19	losing [1] 153/22
July 2004 [1] 5/23	91/8 91/9 94/17 94/25	lead [2] 53/19 118/25	48/24 101/8 151/16	150/22 157/15 167/3	lost [11] 19/12 65/25
June [2] 30/10 40/17	95/6 97/12 97/15	leadership [1] 56/16	158/15 160/19	live [1] 26/9	68/15 72/24 77/13
June 2009 [1] 30/10	98/10 98/18 99/8	leaflet [10] 13/15 63/4	levels [1] 7/2	lived [1] 24/23	77/21 80/11 82/25
junior [1] 121/1	101/15 105/6 106/9	63/6 63/12 69/16 71/19 91/23 92/9	LFTs [1] 74/4	liver [14] 74/1 79/4	84/6 91/2 98/15
juniors [1] 29/1	107/21 108/23 111/4		liaised [1] 57/14	81/6 82/3 89/13 89/17	lot [32] 3/22 19/12
just [68] 1/5 1/11 4/2	111/21 113/18 115/22	92/18 129/13	liaison [1] 43/7	96/5 97/25 98/4 98/5	34/17 36/11 44/12
4/11 5/4 8/18 10/20	118/2 118/16 120/17	leaflets [6] 24/4 24/6	licensed [1] 116/21	98/6 98/7 98/12	47/16 53/16 61/10
11/1 11/24 13/22 15/6	120/24 121/2 123/11	25/16 61/24 61/25	life [25] 13/10 55/16	130/11	69/4 72/4 72/15 72/25
19/19 24/19 35/4	126/16 127/15 127/25	63/2	55/17 80/6 87/4 97/17	Liverpool [3] 47/22	78/25 106/24 112/10
35/19 37/11 40/10	128/13 129/10 130/3	learned [2] 50/21	101/5 101/18 101/24	123/6 157/12	114/4 114/18 114/19
41/14 42/22 61/1 68/8	130/12 131/1 133/18	144/16	103/10 103/13 103/14	load [1] 89/7	120/13 134/25 138/19
73/10 79/20 80/22	135/5 136/6 136/20	learnt [2] 4/24 28/21	104/12 104/16 104/20	loan [1] 101/8	139/3 139/21 140/19
80/23 81/12 82/12	136/24 139/2 139/21	least [17] 18/16 18/25	105/1 105/5 105/23	local [3] 15/17 122/25	
86/21 90/19 94/11	140/5 145/15 145/21	37/14 43/1 65/15	106/17 106/23 111/17	123/1	150/15 150/15 153/9
95/18 95/18 96/10	147/10 147/14 148/17	65/17 67/18 70/23	112/7 115/20 166/21	location [1] 106/7	155/6 158/16
97/13 99/24 100/5	148/18 149/2 150/14	76/5 85/19 86/2	166/24	lodged [1] 142/21	lots [6] 38/22 38/23
103/11 104/14 106/1	151/1 151/14 153/1	101/22 121/9 125/25	lifestyle [3] 136/8	London [1] 53/20	98/5 124/7 147/9
106/3 106/13 106/15	153/3 153/23 154/1	133/14 151/11 168/15	136/13 137/17	long [20] 3/20 4/9	147/9
109/1 109/16 109/18	154/5 154/6 157/22	leave [2] 40/9 99/17	lifetime [1] 167/11	9/25 26/23 26/23	low [6] 7/3 7/25 118/8
113/1 113/10 113/12	157/25 157/25 158/1	leaving [1] 122/16	light [1] 45/22	62/17 79/25 91/2	149/16 149/24 150/18
	158/3 158/11 158/14	led [6] 12/3 33/1	like [20] 32/15 37/12	91/20 92/1 131/19	lower [2] 84/9 159/24
					(56) its lower

(56) its... - lower

	,				
L	31/24	92/16 93/6 94/15 95/1	64/16 65/1 68/1 68/2	155/8	morning [4] 1/3 1/4
<u> </u>	manufacturer [7] 4/24	95/6 99/1 99/7 103/20	71/11 132/21 134/2	minimum [1] 16/2	86/25 123/10
Ludlam [1] 2/18	5/14 124/2 135/7	104/8 106/6 114/2	134/10 141/25	minority [3] 80/20	MORRIS [2] 2/1 170/2
lunch [5] 86/17 87/6					
87/17 102/5 104/18	135/9 147/8 162/4	115/15 116/7 116/8	meetings [6] 58/21	85/14 97/24	mortality [5] 33/25
Luncheon [1] 87/23	manufacturers [3]	117/2 125/19 126/9	68/12 132/19 134/6	minute [1] 40/4	67/19 67/21 105/11
	134/3 134/17 164/22	135/20 143/23 144/4	134/13 134/16	minutes [8] 47/16	111/24
Lymm [1] 101/11	manufacturing [1]	144/19 150/13 154/8	member [7] 46/18	47/20 58/10 58/20	mortem [10] 22/24
lymphoid [2] 29/13	6/19	155/5 156/12 162/16	47/1 47/1 50/2 59/9	63/20 71/15 87/18	40/25 41/3 41/3 41/6
36/11	many [41] 14/11 28/8	168/15	123/23 133/24	132/19	41/19 41/24 42/25
M	32/8 32/9 38/18 53/8	maybe [4] 29/11 48/6	members [7] 1/16	mischievous [1]	43/17 44/7
made [20] 7/18 18/19	56/23 58/25 59/19	79/14 111/15	21/16 49/17 50/10	150/18	mortems [4] 41/11
37/19 39/4 41/19 42/7	59/25 65/15 74/5	Mayor [2] 47/23 133/6	83/21 121/11 138/17	misconduct [1] 140/2	41/12 42/11 42/11
	76/20 76/22 77/17	me [46] 1/5 2/24 4/6	members' [1] 134/22	misguided [1] 151/21	mortgage [1] 97/17
42/21 61/21 65/10	77/20 82/7 82/8 82/20	5/4 5/6 5/15 5/16 13/2	membership [6]	Miss [1] 57/14	most [22] 6/24 26/19
65/20 77/19 79/7	82/24 90/4 118/14	26/19 51/19 52/10	46/25 47/4 49/17	Miss Spooner [1]	27/8 29/2 32/12 34/21
81/13 102/23 133/25					
135/8 140/8 142/14	127/1 127/8 132/12	52/25 65/21 66/3 82/6	50/11 51/4 70/9	57/14	37/23 38/15 62/23
145/19 147/11	134/7 136/16 142/21	87/11 90/17 91/3	memory [1] 164/1	missed [2] 44/19	77/11 79/12 105/24
mailing [1] 22/5	142/23 147/18 149/15	96/23 101/11 101/12	mention [1] 101/2	47/15	110/5 119/19 125/21
	151/16 153/6 153/10	104/14 104/22 126/19	mentioned [6] 32/11	missing [3] 30/4	125/22 126/3 126/13
main [6] 15/5 32/11	153/18 154/3 157/19	129/3 133/4 136/17	51/23 74/2 135/21	34/12 85/16	131/20 141/15 160/24
60/16 60/16 77/4	158/3 163/21 167/10	140/4 140/7 140/15	154/13 156/7	mistaken [2] 30/13	166/17
93/25	168/25	141/4 141/5 142/9	merely [1] 38/9	138/14	mostly [4] 8/7 77/12
maintain [1] 163/20					
major [3] 6/23 97/16	March [2] 82/16	142/24 143/9 143/22	met [1] 68/5	mistakenly [1] 31/20	85/13 135/12
163/24	104/10	146/5 148/13 150/7	metal [1] 36/22	Mitchell [1] 169/13	motive [1] 148/18
majority [1] 108/25	margin [1] 110/16	150/14 152/11 154/16	method [1] 166/23	mitigate [1] 40/2	mount [1] 146/22
	Marie [1] 133/10	157/9 165/12 166/2	methodology [3]	mode [1] 21/25	move [7] 3/8 4/11
make [20] 24/1 38/16	market [2] 55/7	167/24	127/13 127/22 128/5	moderate [1] 136/11	19/18 45/8 69/19 76/7
38/21 55/23 60/19	163/22	mean [30] 5/24 13/7	methods [2] 104/20		112/23
67/22 69/8 86/8 99/8				modest [1] 112/8	
116/9 117/18 120/20	marketed [1] 124/14	13/9 14/17 27/23	105/8	modestly [1] 104/23	moved [4] 58/8 77/20
145/11 146/3 146/9	marketing [1] 116/23	36/15 54/1 54/4 56/5	metric [1] 104/21	modification [1] 81/3	77/24 80/5
156/18 157/13 163/18	mask [1] 1/19	62/9 88/16 89/1 89/24	microscopic [1] 44/19	molecule [1] 166/22	moving [6] 86/16
	material [21] 41/7	93/12 94/23 95/12	mid [3] 107/3 119/6	moment [6] 8/4 35/4	95/22 122/10 122/15
164/7 166/13	41/9 41/11 42/21	95/13 96/22 97/14	119/9	45/9 114/12 146/15	123/3 133/23
maker [1] 70/5	42/25 43/5 43/10	100/16 101/7 109/6	mid-'80s [2] 119/6	154/1	Mr [4] 73/12 73/15
makes [1] 145/3	12/12 12/17 12/10		119/9		
making [9] 38/22 46/6	43/13 43/17 43/18	136/4 137/6 143/5		moments [1] 38/3	137/22 138/24
72/14 79/16 79/21	43/22 44/7 44/11	146/18 146/24 158/18	might [55] 8/20 10/3	Monday [1] 26/10	Mr Barker [2] 137/22
84/11 134/22 164/23	44/13 45/2 58/18	159/19 164/21	16/14 17/5 18/13	money [2] 37/19	138/24
164/25	84/18 102/9 102/21	means [3] 7/1 27/20	24/24 29/11 42/12	164/23	Mr James [1] 73/15
	106/6 156/1	92/13	47/15 57/15 58/24	monitor [1] 160/14	Mr Stevens [1] 73/12
males [1] 103/16	materials [7] 32/17	meant [1] 4/3	63/10 73/1 79/12		MREC [1] 122/22
Malmo [1] 133/10	47/10 47/12 58/11	meantime [1] 33/24	79/22 81/11 89/4	monopoly [1] 162/9	Ms [10] 1/6 1/15 1/24
managed [1] 139/7					
management [4]	58/15 73/10 120/6	measures [3] 8/24		month [2] 23/10 126/6	
56/12 58/3 59/11	matter [15] 14/22	12/12 12/16	93/8 93/9 93/10 94/13	monthly [1] 10/18	108/14 143/19 167/20
71/12	14/23 32/4 43/20 60/1	mechanism [1] 137/6	94/17 98/25 99/10	months [1] 147/25	170/3
	88/22 109/8 111/23	median [3] 103/9	114/4 115/11 117/16	Morbidity [1] 33/25	Ms Pappenheim [1]
manager [2] 56/5	115/15 116/6 117/14	103/14 105/1	118/25 119/2 119/11	more [52] 4/8 5/6 38/8	
156/20	150/15 152/14 154/18	medical [20] 14/3	121/4 121/12 131/7	49/6 49/14 49/15	Ms Richards [6] 1/15
Manchester [24] 2/9	159/4	51/10 59/21 108/9			1/24 2/2 108/14
4/19 5/13 19/6 19/8			136/16 136/19 136/20	50/13 52/13 53/11	
19/10 24/9 26/16 36/3	matter's [1] 26/12	135/17 135/19 140/1	136/21 136/25 141/9	56/4 56/10 57/8 63/10	167/20 170/3
36/8 39/25 44/5 45/4	matters [2] 54/22	140/22 141/3 142/13	142/23 144/24 147/16	63/24 72/5 72/8 74/11	Ms Scott [1] 87/12
48/5 56/13 58/5 58/8	86/21	143/21 143/25 145/4	150/25 151/11 153/5	75/8 81/5 83/5 89/18	Ms Spooner [1]
	maximum [1] 25/23	146/4 146/8 146/25	154/22 155/6 156/15	98/3 100/1 101/21	102/12
91/13 93/13 111/4	may [64] 1/6 2/13 3/4	147/23 150/3 150/9	162/10 162/10 167/9	103/9 108/21 109/3	much [39] 5/6 27/6
111/8 144/15 144/18	4/17 12/25 15/17 20/9	150/21	mild [9] 19/11 62/15	111/8 116/3 120/13	27/9 49/22 50/18
147/20		Medicines [3] 6/18	77/12 77/18 78/6 83/4	122/11 122/23 124/20	
manifesting [1] 21/21	28/1 32/2 35/21 41/2				51/12 52/15 56/25
manipulating [1]	41/3 41/12 43/8 47/9	124/4 165/25	91/1 136/10 137/8	125/9 125/10 126/4	73/1 79/6 95/19 99/2
149/19	49/19 49/21 49/22	medicolegally [1]	miles [1] 60/17	129/23 131/3 135/11	101/4 105/2 106/20
manufacture [4] 3/18	55/17 62/25 63/1 72/6	144/4	million [2] 37/13	135/12 135/19 139/23	106/21 109/3 110/16
	72/24 77/22 77/24	medium [2] 7/3 7/18	164/20	139/23 140/13 143/23	110/21 111/3 118/10
11/6 30/19 164/23	77/25 78/2 78/7 85/10	meeting [19] 1/7 1/19	mind [4] 117/16	157/9 159/8 160/11	122/8 122/20 131/5
manufactured [5]	85/12 86/21 87/3 90/4	2/7 35/13 35/21 35/22	128/11 158/4 163/23	163/20 167/1 167/5	137/6 138/1 153/16
2/10 4/20 23/5 30/22					
	90/5 90/8 91/8 92/14	50/7 50/23 50/25 51/5	minimise [2] 40/5	167/7	154/23 155/10 155/10

(57) Ludlam - much

М	100/14 130/9	73/6	non-B hepatitis [1]	149/1 169/6 169/15	132/2 132/4 132/5
	necessary [3] 29/8	NHD [4] 33/17 33/24	160/5	169/18	169/15
much [9] 156/21 162/17 164/23 167/13	39/11 76/25	82/19 83/6	non-cellular [1] 22/2	November 1994 [1]	obesity [1] 98/8
167/18 168/11 168/13	need [27] 7/25 8/1	NHS [34] 51/13 53/19	non-commercial [1]	137/23	objective [1] 163/18
168/22 169/16	10/25 11/8 11/13	53/20 53/20 55/10	54/25	November 1997 [1]	objectives [2] 76/16
multi [2] 122/23 166/5	15/21 19/12 20/10	55/11 55/15 55/23	non-disposable [1]	2/7	78/23
multi-centre [1]	24/5 20/10 20/22 50/0	60/23 60/24 62/13	29/14	November 2003 [1]	obliged [3] 83/8 94/8
122/23	38/1 44/2 55/9 55/18	62/19 63/23 64/4	non-profit [1] 46/6	71/11	165/19
multiple [3] 80/2	69/6 70/16 85/21 91/8	64/12 64/13 65/1 65/4	non-severe [1] 80/17	November 2005 [1]	observational [14]
127/2 149/9	93/16 95/21 99/12 131/5 131/19 149/21	65/6 66/11 66/14 67/17 67/23 68/1	non-specialist [1] 78/7	149/1 November 2020 [1]	107/11 115/10 115/14 116/2 116/10 116/15
muscle [1] 137/11	156/18	68/22 69/2 69/3 85/5	none [2] 39/3 167/11	1/1	116/23 117/8 117/19
must [3] 68/4 103/17	needed [13] 16/12	85/6 85/7 85/9 85/17	nonetheless [1] 145/5		118/23 118/24 119/23
109/9	30/5 46/24 57/8 60/5	107/22 107/25	Nor [1] 1/11	16/21 19/24 32/21	120/12 120/20
my [54] 4/7 19/17	60/10 64/24 65/4 79/6	NHS England [1]	normal [7] 88/11 89/1	33/9 37/18 38/11	observe [1] 109/19
31/11 35/16 37/6	118/14 128/23 140/25	53/19	89/22 103/16 116/22	38/15 38/24 46/18	observed [4] 39/5
37/12 37/22 43/23 51/15 57/11 58/7	157/18	NHS RA CAG [1] 69/3	135/11 167/1	47/18 51/8 52/10	109/1 136/24 157/6
60/13 61/25 63/3 64/3	needs [2] 15/13	NHS Scotland [1]	normally [2] 87/9	53/16 56/5 56/5 58/9	observing [1] 117/7
66/22 73/5 81/15	131/10	53/20	120/14	60/13 60/14 60/18	obtain [6] 65/22 68/17
85/20 86/11 88/2 90/1	negated [1] 118/3	NHS Wales [1] 53/20	Northern [1] 102/14	61/15 63/16 64/2	70/8 96/1 99/20
90/18 91/21 92/10	negative [1] 91/8	Nilsson [1] 133/10	Norwich [1] 47/23	64/19 65/10 66/2	138/12
96/22 96/23 97/1 98/9	negligence [4] 138/15		nose [1] 137/2	66/14 69/23 70/7	obtained [6] 40/20
98/10 100/16 100/24	139/6 141/20 146/25	9/18 9/21 10/9 17/20 18/11 18/12 22/8 22/8	not [196] note [6] 35/16 45/8	71/24 81/19 85/17 86/17 91/12 91/23	41/1 41/11 42/22 61/11 81/25
101/10 106/8 110/8	negligent [1] 151/25 negotiated [2] 161/14	24/15 24/18 29/18	86/15 131/7 135/24	92/16 94/21 96/10	obtaining [4] 42/10
112/19 112/19 122/13	165/14	34/14 35/15 39/11	136/4	97/21 98/9 98/16	67/14 80/12 91/17
126/18 127/14 128/18	negotiating [1]	43/9 43/19 52/4 58/17	noted [4] 9/4 135/24	98/21 103/25 104/14	obtains [1] 69/23
129/5 135/18 136/16	161/17	59/2 64/23 70/7 72/11	136/1 168/10	104/19 105/14 106/9	obviously [17] 5/24
139/14 140/19 143/10	negotiating per [1]	79/16 79/21 84/1	notes [22] 9/3 15/19	113/25 115/3 120/2	8/15 13/15 24/25
146/2 153/19 154/7	161/17	84/10 86/6 93/14	18/24 28/13 72/24	127/3 127/13 128/8	36/16 53/14 56/6
157/13 157/14 160/1 167/15	net [2] 77/22 124/24	99/16 106/25 108/9	73/24 74/5 75/25	129/10 139/12 144/1	67/12 81/19 97/25
my GP [1] 101/10	neurological [1]	108/9 112/3 113/15	145/2 145/17 146/9	144/18 144/21 151/1	108/10 126/25 138/2
myself [1] 101/10	24/16	114/25 115/15 122/15	147/11 147/11 147/14	153/14 158/13 159/18	142/13 144/25 163/8
mystery [1] 150/7	never [11] 1/10 24/25	123/9 131/1 132/11	147/19 147/20 148/1	165/7 165/9 165/12	169/2
	66/1 68/5 73/3 75/12	133/18 133/22 137/13 137/13 137/14 138/19	148/4 148/8 148/11	165/25 167/3	occasion [1] 90/22
<u>N</u>	83/12 95/24 99/20 137/1 142/6	139/17 139/19 142/3	148/16 148/19 nothing [4] 44/14 45/6	nowadays [1] 166/13	occasional [2] 83/4 155/16
name [4] 48/17 85/13	nevertheless [5]	150/10 151/24 159/19	45/7 153/24	28/23 31/2 31/21	Occasionally [1]
122/12 142/9	65/14 72/19 118/11	164/6 164/24 167/6	notice [2] 39/23 66/23		119/21
named [1] 71/5	139/9 155/9	167/23	noticed [1] 93/18	40/21 48/18 63/15	occasions [2] 39/22
names [2] 37/6 41/4 national [40] 4/12	new [20] 1/7 22/8 50/9	no treatment [1]	notification [29] 2/5	63/25 65/6 67/12	117/10
5/19 10/11 10/16	53/22 77/25 77/25	106/25	4/12 5/19 6/6 8/17	73/19 73/21 78/6	occur [3] 6/3 41/3
13/15 17/15 22/18	81/18 89/10 90/2	no-fault [1] 139/17	10/12 13/23 19/23	78/22 79/3 84/6 85/18	130/15
25/21 26/13 28/20	90/11 90/13 91/3 95/5	Nobody [1] 150/10	21/6 22/9 22/16 22/18	103/22 109/19 113/10	occurred [2] 114/4
29/19 29/25 33/17	100/17 116/16 116/16	nominal [1] 72/11	25/13 25/14 25/21	113/24 115/2 115/20	116/11 0-1-1-1-1-25/14
33/21 41/25 42/17	121/24 123/22 124/8	non [26] 22/2 29/14	26/9 26/17 28/7 28/21	117/10 126/23 127/6	October [2] 35/14
44/6 45/23 51/6 51/17	124/11 Nowcastla [1] 47/23	46/6 54/25 78/7 80/17	29/1 29/2 30/13 32/1	127/11 127/18 127/23	35/22
51/23 54/13 56/10	Newcastle [1] 47/23 news [2] 22/7 99/1	123/15 123/15 126/15 126/15 126/24 126/24	32/17 32/23 34/6 38/4 123/10 123/13	130/1 133/13 135/2 137/3 142/22 154/24	odd [3] 25/5 96/20 155/3
57/21 57/23 70/11	newspapers [1]	127/9 127/9 127/12	notifications [3]	157/5 142/22 154/24	off [5] 60/16 126/7
71/18 78/10 122/21	149/19	127/12 127/17 127/17	20/14 29/18 32/8	number 1 [1] 137/3	136/20 136/21 137/3
122/24 123/24 135/1	next [29] 5/17 12/11	127/20 127/21 130/6	notified [9] 4/18 20/6	numbered [1] 40/23	offer [5] 18/12 22/4
161/8 161/11 162/20 162/24 163/1 163/4	12/24 13/11 20/24	130/6 135/15 135/15	29/7 30/24 31/21 33/4	numbers [15] 11/4	69/7 134/5 164/9
163/15 165/22	34/22 35/23 35/24	160/5 160/5	33/11 34/10 34/20	15/14 27/4 68/11 82/9	offered [6] 18/22
nationally [4] 11/10	36/14 41/18 42/10	non-A [10] 123/15	notified' [1] 34/3	85/6 85/6 85/7 85/9	76/21 76/25 120/8
25/14 161/14 165/22	45/20 73/5 75/8 78/5	126/15 126/24 127/9	notify [3] 20/9 31/15	86/13 103/18 144/4	157/15 163/17
natural [4] 9/22 97/15	84/8 88/1 90/1 91/15	127/12 127/17 127/20	43/19	144/7 144/17 145/14	office [1] 49/3
97/21 119/22	91/21 103/7 120/10	130/6 135/15 160/5	notifying [2] 13/19	nurses [4] 31/18 63/5	officeholder [1] 50/2
nature [2] 11/1 61/9	149/5 152/3 152/4	non-B [9] 123/15	21/15	63/9 166/10	officer [2] 146/5 146/8
necessarily [6] 16/13	157/4 159/17 162/7 169/3	126/15 126/24 127/9	notional [1] 165/17	0	official [1] 138/17
28/25 69/6 88/24	NHBT0091224 [1]	127/12 127/17 127/21 130/6 135/15	November [9] 1/1 2/7 19/21 71/11 137/23	o'clock [5] 86/19	often [19] 39/23 62/15 71/22 75/25 78/8 89/5
			10/21 11/11 10//20		1 1122 10120 1010 0010
			4		(58) much often

(58) much ... - often

0	119/7 123/23	141/24 142/6 144/2	65/5 65/9 66/9 69/25	overwhelmed [2] 80/8	
often [13] 89/6 89/7	open [4] 127/4 135/10		71/2 73/17 81/22	81/13	88/7
94/16 119/18 125/18	152/23 153/3	150/24 151/1 151/10	84/24 85/23 92/11	overwhelming [2]	paragraphs [2] 40/23
126/6 145/20 147/12	operated [1] 69/13	151/21 151/21 153/23	93/14 98/2 98/3 101/4	19/1 79/1	104/14
147/18 154/17 154/22	operating [1] 56/6	154/18 156/8 156/14	118/15 123/20 156/19	own [11] 1/15 18/21	parents [1] 15/15
155/19 166/6	operation [3] 71/8	156/21 159/4 162/23	162/2 163/17 163/20	25/24 55/24 86/11	Parliamentary [1]
Oh [4] 122/19 154/23	75/7 116/11	164/11 165/15 165/17	164/13	88/16 96/13 133/20	14/19
156/22 164/22	Operations [1] 40/2	168/9 168/22	out [76] 1/12 6/10	135/19 159/23 167/15	part [16] 17/10 40/18
okay [2] 4/11 132/4	operators [1] 118/4	orally [2] 168/9	6/14 10/15 12/2 12/17	Oxford [10] 2/25 31/4	44/9 52/7 75/3 75/8
older [2] 47/16 72/7	opinion [10] 44/1 60/2	168/13	14/6 15/11 17/1 26/24	32/12 48/5 52/5 56/13	76/5 76/6 80/24 93/24
	60/4 67/24 68/8	order [4] 3/3 50/8	29/4 29/17 30/4 30/10	56/17 57/12 57/18	106/8 107/24 122/9
once [11] 51/2 67/5	107/11 107/12 115/16	50/12 115/6	30/16 30/24 31/17	58/4	134/24 142/17 143/4
77/18 94/9 97/19	154/5 166/20	organisation [16]	32/9 33/12 34/5 34/12		part 2 [1] 76/6
116/20 125/20 126/6	opinions [1] 153/17	6/15 46/3 46/22 47/3	35/3 40/10 43/2 46/5	Р	participant [1] 131/14
128/9 160/5 163/9	opportunist [1] 62/9	47/7 48/9 48/12 50/3	47/10 49/13 58/20	package [1] 67/3	participants [5] 68/18
one [72] 8/7 23/4	opportunity [8] 62/10	50/16 50/19 51/9	61/17 61/23 62/5 63/2	page [57] 7/3 11/7	115/4 120/11 122/1
24/19 30/21 34/25	62/24 63/8 87/10	51/10 54/11 56/3 58/1	63/3 64/22 65/18	11/16 11/23 12/2 12/8	169/5
37/7 37/11 40/10	96/18 120/8 131/23	58/4	67/16 69/5 69/15	12/11 12/18 12/21	participate [5] 46/17
49/15 49/18 57/23	131/24	organisations [1]	70/15 71/3 71/7 72/10	12/24 13/4 13/11	116/22 118/15 119/18
58/9 64/1 64/22 70/18	opposed [1] 142/17	57/20	72/22 74/15 76/16	13/25 14/1 17/12	121/23
71/7 73/11 74/1 84/24	opt [7] 61/17 61/23	organise [2] 148/3	77/3 78/11 78/22 79/6	17/25 20/10 21/3	participate in [1]
88/8 91/9 92/10 93/9	64/22 64/24 69/14	166/3	81/1 82/9 85/3 93/11	21/12 23/13 23/18	116/22
93/10 93/17 95/5	70/15 70/20	organised [7] 10/11	94/5 98/24 100/18	29/16 35/15 35/19	participating [2]
97/22 98/14 100/24	opt-in [1] 64/24	25/14 47/11 68/1	104/22 109/21 112/17	35/23 35/24 42/19	116/20 116/25
	opt-out [4] 61/17	164/7 165/13 165/23	115/7 115/24 116/4	46/4 47/17 71/13	particular [13] 19/9
105/14 106/17 113/8	61/23 64/22 70/15	origin [1] 72/22	129/20 130/17 136/15	74/15 74/16 76/15	19/13 24/10 31/5
113/19 117/9 117/12	option [1] 6/24	original [1] 41/8	137/1 138/11 145/10	77/1 77/16 78/5 78/11	51/22 73/11 75/9 90/9
117/22 119/22 120/4	or [139] 3/14 5/14	originally [2] 30/16	148/1 148/17 153/10	83/2 84/8 91/12 91/15	108/15 121/12 136/10
122/12 125/5 129/22	6/15 8/7 9/19 11/6	157/21	154/11 156/13 157/13	91/18 91/21 102/18	160/7 162/2
130/21 130/23 133/2	15/14 16/4 16/9 16/11	other [64] 3/9 3/14 5/4		106/11 106/13 106/14	particularly [14] 2/25
136/25 137/2 138/6	16/14 16/17 17/18	8/3 8/7 10/17 15/15	outcome [5] 9/13	108/12 108/17 137/24	19/11 37/10 60/18
141/14 142/9 142/22	17/20 18/22 18/25	24/17 28/5 28/17 32/3	76/21 140/18 141/8	143/23 145/9 146/12	62/14 72/7 92/6
143/9 144/9 145/1	19/7 22/15 23/16	32/5 32/11 34/25	143/2	149/5 152/3 152/5	111/14 117/17 124/12
145/13 146/21 147/22	24/16 28/19 29/6	37/21 46/8 46/14	outcomes [1] 79/3	152/8	128/21 131/16 133/12
148/2 148/10 148/23	29/20 30/13 30/22	47/22 49/23 51/18	outlet [1] 141/1	page 6 [2] 47/17 77/1	159/10
148/24 152/3 154/1	32/8 39/13 39/22 41/3	54/12 54/14 54/22	outline [3] 30/13	page 9 [1] 78/11	parties [2] 61/7
157/8 159/9 161/11	41/6 41/12 43/19 44/5	57/2 57/12 64/3 64/19	60/20 60/20	pages [1] 38/20	112/14
163/11 164/18 165/17	44/14 47/11 49/21	67/15 68/9 79/4 79/14	outlook [1] 159/1	paid [3] 52/6 52/8	partly [8] 46/24 51/16
166/13	50/2 51/13 51/22 53/4	79/17 85/21 88/13	outrageous [1] 157/2	164/19	68/10 82/18 82/20
one's [2] 137/2	56/2 58/13 60/16	91/9 93/10 93/17	outset [1] 164/14	paints [1] 110/21	122/10 166/6 166/7
153/24	60/17 61/3 61/6 61/14	100/4 105/4 105/14	outside [2] 57/20	pair [1] 136/25	parts [2] 24/17 134/12
one-time [3] 129/22	62/7 63/5 63/9 68/4	112/21 113/6 116/7	79/18	pandemic [1] 69/22	party [14] 4/19 5/1 5/8
130/21 130/23	70/4 70/12 70/13	117/13 121/3 122/11	over [40] 7/3 11/7	panel [11] 6/8 6/10	8/9 33/25 58/3 59/10
ones [2] 129/22	73/14 73/24 74/6 75/4	124/21 125/14 127/4	12/2 12/21 13/4 17/25	6/25 10/12 10/21	59/11 59/14 92/20
141/15	75/10 75/22 76/7 77/7	130/3 137/2 137/2	20/10 21/2 23/18	12/19 14/14 16/3 16/8	112/16 123/18 132/17
ongoing [2] 51/21	77/9 77/12 77/24 78/1	137/5 138/8 141/8	29/16 32/21 39/21	38/14 39/17	132/24
123/6	79/14 80/11 83/13	144/10 144/19 144/23	46/4 49/25 50/15 52/2	paper [6] 101/25	passage [2] 74/6
online [1] 1/17	84/3 85/19 88/12	149/10 153/16 159/2	52/10 54/15 56/21	113/3 114/12 129/2	115/7
only [34] 1/13 10/8	88/17 88/19 90/3	160/8 167/10 167/15	57/6 58/10 58/16	129/4 129/6	passed [1] 53/3
18/19 28/8 31/23 33/8	90/10 91/9 93/9 94/1	others [7] 11/15 16/24		papers [5] 51/24	passing [1] 135/21
37/3 38/21 48/3 49/18	94/2 95/7 96/1 96/2	52/22 106/2 111/3	83/6 87/6 91/18 102/5	127/23 128/8 133/7	past [7] 32/1 49/12
50/6 52/8 70/19 71/3	96/15 97/8 98/17	161/10 166/24	104/18 113/11 113/12	147/17	83/20 87/19 117/11
75/16 81/7 93/25 97/7		otherwise [2] 98/13		paperwork [1] 67/1	165/24 166/17
101/2 104/21 105/3	98/19 99/22 103/25 104/20 106/25 109/15	163/7	114/21 121/5 136/18	Pappenheim [1]	
113/1 117/25 124/14		our [48] 2/19 3/5 3/11	141/14 146/12 150/23 161/17 164/18	143/19	path [1] 64/9
124/23 125/19 125/19	110/3 111/16 113/2			par [1] 64/5	patient [105] 9/4 9/13
126/5 131/21 135/20	113/22 115/5 116/11	8/12 8/23 9/7 17/7	overall [1] 38/7		11/24 13/23 14/7 16/4
135/24 141/1 155/22	116/12 116/25 117/19	20/22 22/4 22/15	overlap [2] 105/21	paragraph [18] 6/13 7/4 15/5 21/16 23/1	17/17 17/24 18/2 18/3
158/5	119/10 119/12 119/13	25/12 26/8 39/9 39/17	129/16	29/17 36/1 40/24	19/23 21/20 23/2 23/8
onset [1] 153/6	120/21 121/3 122/7	39/17 51/17 60/4 60/20 60/20 60/24	oversight [1] 59/12	74/16 77/4 88/7 100/8	23/15 23/16 23/20
onwards [6] 12/17	123/14 126/15 127/4	60/20 60/20 60/24	overspeaking [2] 128/25 129/2	103/1 103/7 103/24	
69/23 107/23 108/1	135/4 135/11 135/15 135/23 138/8 141/10	63/12 63/17 63/18 64/1 64/4 64/5 64/25		143/24 146/13 152/10	25/2 25/20 27/15
	133/23 130/0 141/10	04/1 04/4 04/0 04/20	overview [2] 8/5 24/7	140/10/10/10/10	27/24 28/3 34/22
L	I	L	L	L	(59) often - natient

(59) often ... - patient

Ρ	percentage [2] 127/9	26/19 27/8	<b>plus [1]</b> 150/17	41/11 41/12 41/19	pregnant [1] 101/15
patient [79] 36/14	127/19	phlebotomist [1]	pm [5] 87/22 87/24	41/24 42/11 42/11	premises [1] 1/21
37/2 37/4 37/7 40/4	perception [1] 104/11	88/11	132/6 132/8 169/17	42/25 43/17 44/7	prepared [6] 11/23
	perfect [1] 102/25	phone [1] 72/15	point [41] 2/8 3/16	49/23 57/25 157/15	13/15 41/8 71/18
43/12 44/16 52/20	perfectly [5] 5/7 16/10		5/25 12/13 12/22 13/6	post-mortem [6]	120/4 168/6
63/6 66/24 67/1 67/3	59/4 151/15 151/17	145/9	14/25 16/25 17/4	40/25 41/19 41/24	prerequisite [1] 54/10
71/2 73/24 78/3 79/10	performed [2] 41/24	physically [1] 137/10	26/22 27/3 27/14 28/6	42/25 43/17 44/7	prescribe [2] 116/21
79/13 80/2 85/18	43/2	pick [4] 2/3 23/13	38/20 47/4 47/24	post-mortems [4]	165/21
85/19 86/1 86/6 88/2	perhaps [12] 8/4 10/4	35/17 143/22	52/14 57/13 58/3	41/11 41/12 42/11	prescribing [1]
88/9 88/15 88/18	25/11 37/21 62/23	picked [3] 26/13	60/13 62/11 66/16	42/11	165/20
88/24 89/4 89/13	76/6 86/16 87/5 98/14	44/17 44/25	67/22 67/23 75/13		
89/19 89/19 90/2 90/2				posted [1] 62/6	prescription [2]
90/6 90/9 90/10 90/13	105/19 156/14 167/11	picking [1] 118/18	85/17 88/14 89/4	posting [1] 62/20	145/18 163/21
91/1 92/14 93/22	period [57] 10/5 16/20		104/22 108/6 116/6	postmortem [2] 42/21	
93/24 94/15 94/23	21/24 30/16 30/18	80/3 108/6 110/21	118/18 118/21 130/7	43/5	87/8 109/16 125/8
96/5 96/7 96/21 98/14	38/9 38/25 39/8 43/1	piece [2] 72/23 102/8	138/18 139/22 142/22	postmortems [1] 43/2	
98/21 100/15 115/21	47/4 50/1 53/9 61/12	pioneered [1] 133/9		posts [1] 57/19	presented [3] 8/11
116/19 119/1 121/9	62/2 65/22 69/13 72/8	place [13] 29/2 39/21	148/2	postspectively [1]	147/15 147/16
128/22 136/23 138/3	73/23 74/8 74/23 77/6	41/6 41/12 41/13	pointed [1] 81/1	42/11	presenting [1] 147/25
138/6 142/9 144/21	79/18 81/17 83/10	49/16 60/25 97/18	points [1] 63/17	potential [8] 6/21 7/9	presents [1] 26/25
144/24 145/3 145/7	100/19 101/22 105/17	121/4 135/16 136/5	policies [1] 36/5	7/19 27/16 27/22	press [9] 8/20 14/8
145/8 145/21 145/25	105/24 106/11 108/24	140/17 168/20	policy [13] 3/6 3/10	36/12 52/23 92/25	14/20 21/3 21/8 26/13
	109/23 110/5 110/9	places [2] 128/2	3/11 12/23 35/1 37/22	potentially [6] 24/11	67/2 138/4 138/22
146/4 146/9 146/11	110/10 110/14 110/23	159/5	38/5 38/7 39/21	80/21 83/11 102/8	Preston [1] 121/1
147/3 147/4 148/11	110/24 111/1 111/1	plainly [2] 159/18	144/10 149/7 161/9	121/19 158/1	Preston's [2] 100/23
149/10 149/16 152/15	111/14 112/10 113/16	162/20	161/9	pounds' [1] 37/13	157/7
153/18 154/2 154/6	113/21 113/22 113/23	plan [3] 14/2 14/4	polyethylene [3]	practical [6] 13/3	presumably [8] 2/19
158/6 160/14	119/8 120/24 121/7	92/12	166/23 167/4 167/8	35/11 39/20 128/14	18/5 21/4 24/13 25/22
patient's [9] 15/18	122/9 124/25 125/1	planned [1] 14/8	pooled [4] 10/9 17/17	128/17 163/5	43/12 96/17 161/11
24/19 70/16 70/19	125/3 125/7 125/11	planning [6] 22/5 40/5		practice [17] 31/11	pretty [2] 27/1 160/9
135/16 136/13 145/1	147/7 165/1 168/14	52/19 55/24 79/5 81/8	pools [2] 4/20 123/7	88/17 88/17 89/1	prevalence [1] 128/10
145/2 152/14	periods [4] 105/16	plasma [20] 2/10 3/19	poor [1] 159/4	89/22 96/13 98/2	prevent [1] 114/4
patients [222]	105/21 113/19 114/22	4/20 4/21 6/11 19/22	popular [1] 3/23	99/14 99/15 99/23	previous [12] 20/14
patients' [5] 37/6	peripheral [1] 146/3	23/5 23/16 30/20	population [5] 18/20	100/13 100/25 101/16	28/25 29/5 34/8 39/5
58/12 61/12 71/13	permission [4] 70/17	30/22 31/10 31/25	53/18 98/8 128/11	117/14 135/11 157/12	59/20 78/1 83/15
140/21	70/22 94/6 146/7	32/23 33/8 88/23	128/12	157/24	83/23 88/5 104/17
pattern [1] 61/17	person [7] 12/4 17/21	107/2 125/6 126/3	position [18] 2/14	practiced [3] 114/2	130/19
pavement [1] 136/21	22/25 64/7 117/21	126/5 155/11	3/11 25/24 27/14	133/5 133/13	previously [5] 20/6
pay [6] 50/10 55/13	130/4 168/3	plasma-derived [1]		practices [3] 88/5	21/5 47/18 52/3 90/10
57/20 156/16 156/22	personal [6] 16/18	125/6	69/12 70/13 70/14	157/9 159/2	price [10] 161/18
161/23	25/24 60/13 90/18	plasmapheresis [1]	96/12 100/6 108/1	practising [1] 108/4	161/22 162/7 164/10
paying [1] 165/9	110/00 150/00	126/4	138/21 140/23 142/3	pre [4] 95/25 99/17	164/12 164/17 164/20
payment [2] 75/3 76/5	personalised [1] 67/4		157/1	100/11 129/11	165/14 165/22 166/7
peculiar [1] 162/2	personality [1] 137/4	play [3] 58/20 134/24	positive [6] 91/7 95/7	pre-donation [1]	prices [1] 165/9
pegylated [3] 166/22	personally [1] 100/16	135/4	125/3 130/17 158/18	129/11	primarily [1] 80/16
167/4 167/10	perspective [1] 34/7	please [53] 2/15 2/16	167/6	pre-test [3] 95/25	primary [1] 14/6
penultimate [1]	persuade [1] 142/1	4/15 6/4 10/24 11/12	positives [2] 125/21	99/17 100/11	principle [6] 90/7
148/24	pertained [1] 165/10	11/21 13/22 19/19	126/13	precautionary [3]	93/19 94/19 121/6
people [35] 1/13 1/20	pessimistic [2] 38/15	20/25 21/10 22/20	positivity [1] 126/14	6/24 7/6 12/16	151/23 151/24
31/2 40/3 49/20 57/23	39/1	23/24 26/3 27/12	possibilities [1] 28/5	precautions [1] 7/21	principles [1] 93/17
68/4 68/14 68/15 72/4	Peter [2] 132/18	27/18 30/14 32/18			
72/21 82/8 85/22 97/3	132/25	33/16 35/12 35/14	possibility [10] 5/25 6/2 10/2 10/8 24/22	precipitated [1] 57/16 precise [4] 7/8 32/14	print [3] 7/11 41/20 62/3
97/6 98/6 101/1				109/6 109/7	
104/25 105/8 105/24	Peter Jones [1]	35/20 35/23 40/15 41/16 42/14 42/19	27/23 99/5 99/7		prion [10] 22/25 23/15
112/1 126/2 128/19	132/25 PFC [1] 11/6		101/21 103/19	precursor [1] 87/1	24/16 24/18 25/4 27/17 27/22 36/16
130/16 131/11 135/5		45/25 47/9 51/19 71/9	possible [13] 5/22	predate [1] 47/9	
137/9 137/17 141/11	pharmaceutical [15]	71/10 71/13 73/6	15/16 20/7 23/24	predisposes [1] 94/18	
142/7 144/23 158/11	54/1 54/12 54/15	76/10 76/15 77/1	24/12 43/4 65/9 85/25	predominantly [1]	prion protein [1]
159/9 166/1 167/3	54/19 54/23 55/12	87/11 87/19 91/11	90/15 117/12 134/8	51/11	44/16
people   [1] 97/3	55/13 56/1 133/23	102/19 103/7 106/12	135/14 152/24	prefer [4] 18/13 94/17	
per [5] 52/4 83/21	134/1 134/5 134/10	106/14 129/5 129/14	possibly [4] 31/7	167/6 167/14	51/1 56/2 58/16 59/7
109/22 113/11 161/17	156/7 156/8 156/15	137/21 137/24 143/15	34/10 52/1 121/19	preferred [5] 26/14	73/25 82/1 97/7 98/4
per se [1] 52/4	phenotype [1] 137/8	143/16 146/12 148/24	post [18] 22/24 28/24	58/7 163/8 168/2	pro [1] 53/17
	philosophical [2]	149/4	40/25 41/3 41/3 41/6	168/2	probabilities [4]
L	l	L			(I) patient , probabilities

(60) patient... - probabilities

Ρ	3/2 3/17 3/18 4/4 4/8	66/19	providing [2] 53/13	Q	151/22
probabilities [4]	4/8 5/11 5/12 6/11	progressively [2]	147/2	QR [1] 66/23	raised [4] 10/2 10/7
74/18 74/21 74/25	8/13 8/17 8/19 10/10	125/11 160/19	provision [3] 42/21	quality [3] 85/15	32/4 143/9
75/15	16/5 16/14 16/20	project [2] 53/6 53/13	46/7 46/13	115/20 165/3	raked [1] 153/12
probable [1] 12/7	16/25 17/5 18/17	projects [3] 51/18	provisions [2] 41/23	quarantine [5] 35/3	ran [2] 38/19 62/5
probably [24] 23/12	19/22 20/4 20/8 22/3	51/23 53/14	42/7	37/3 37/14 39/12	randomise [1] 120/11
31/10 36/24 54/8	23/17 27/25 29/22	prolonged [2] 10/5	PRSE0004645 [1]	39/13	randomised [4] 118/2
59/24 66/1 82/25	30/19 30/21 30/25	97/22	106/4	quarantined [1] 9/2	118/4 118/7 119/16
88/24 89/18 90/14	31/1 31/2 31/24 32/23	promote [1] 46/6	prudent [1] 98/19	quarter [2] 45/13	randomly [1] 81/8
90/21 98/3 106/19	33/9 38/13 40/22 55/4	proof [1] 6/3	psychological [1]	45/15	range [7] 90/15 99/25
106/21 107/22 124/23	77/6 83/13 122/3	proper [2] 117/13	157/19	quarters [3] 37/13	127/19 151/22 153/17
131/3 133/8 135/7	124/13 124/18 124/19	163/1	public [22] 1/17 7/1	37/15 148/10	161/12 162/1
136/2 137/2 141/14	125/6 134/22 135/1	prophylactic [2]	7/8 7/16 7/21 13/13	question [35] 14/19	ranging [1] 38/8
150/24 160/1	154/17 155/17 159/18	132/15 133/21	17/21 23/19 28/14	16/7 17/7 17/16 18/1	rapidly [3] 3/6 71/3
problem [33] 3/5 3/21	159/22 160/8 160/21	prophylaxis [10]	28/16 31/22 33/5	42/9 43/24 55/21	80/21
4/6 10/9 19/7 19/9	161/12 162/1 163/13	112/14 114/2 114/8	34/15 35/9 39/10 99/3	55/22 58/12 59/16	rare [1] 27/1
19/13 30/17 32/9	165/21 166/6 166/17	132/12 132/17 133/4	149/17 149/23 150/6	73/5 73/18 91/16	rata [1] 53/17
36/10 37/23 39/24	166/19 166/22 167/4	133/5 133/7 133/9	150/23 151/11 152/13	95/22 104/7 117/2	rate [6] 55/19 74/24
40/1 40/1 44/9 52/3	167/15	133/18	publication [1] 10/22	117/20 117/21 118/20	75/2 114/21 128/4
	profession [1] 150/21	proportion [2] 97/23	published [4] 82/3	118/22 121/18 121/21	168/12
63/22 64/5 68/14 80/16 101/6 117/24	professional [2]	109/7	104/10 105/10 133/7	126/9 126/17 129/20	rates [1] 128/4
119/13 125/4 128/15	46/13 140/2	proportionately [3]	pulling [1] 80/19	131/4 135/25 139/6	rather [15] 5/1 30/25
129/23 135/9 140/12	professor [39] 1/3 2/3	113/3 114/18 114/20	purchase [2] 37/20	147/4 150/12 157/4	31/9 64/11 74/17
144/21 147/12 151/24	6/6 14/11 15/1 27/11	proposal [9] 16/3	134/23	159/17 165/14 166/11	112/19 115/5 119/2
155/5 164/2	40/16 40/20 45/20	29/24 41/10 58/4 58/7	purchased [1] 135/1	questioned [1] 63/25	138/10 138/21 151/1
	47/14 71/24 75/6	76/11 76/16 78/16	purchaser [1] 53/19		152/15 155/3 168/3
problems [2] 19/15 128/17	84/17 86/21 86/23	126/20	purchasing [2]	questioning [2] 1/6 66/3	168/23
procedure [1] 36/18	86/24 87/14 87/16	proposals [2] 58/5	165/13 165/24	questionnaires [1]	re [13] 93/20 147/24
	88/1 88/14 100/23	60/21	purification [1]	115/20	148/4 154/14 154/19
procedures [1] 69/2	101/19 102/22 106/10	proposed [5] 41/20	160/18	questions [30] 2/2	154/25 155/3 155/4
process [19] 16/25	108/16 109/25 111/23	42/16 78/12 96/16	purity [3] 4/7 120/3	41/15 45/21 56/23	155/16 155/18 155/20
58/17 61/21 63/20 64/1 66/3 66/13 67/16	115/2 118/19 121/1	141/25	155/14	62/25 63/1 69/9 81/12	155/23 155/25
71/1 92/9 93/18 97/6	131/23 132/10 137/20	proposer [1] 49/16	purpose [12] 12/10	87/3 87/12 88/1 88/3	re-bind [1] 148/4
97/18 111/9 123/11	142/13 142/20 154/8	prospect [1] 107/15	18/5 25/21 79/5 88/13	90/1 92/1 92/3 96/23	re-bound [1] 147/24
129/11 146/25 161/5	157/7 167/21 167/25	prospective [3] 41/21	90/7 91/17 93/5	115/3 116/1 131/6	re-call [3] 154/25
166/4	Professor Hay [20]	42/20 129/12	116/13 116/14 138/24	131/8 131/10 131/12	155/3 155/4
procurement [2]	2/3 14/11 45/20 71/24	prospectively [1]	138/25	131/13 131/20 147/4	re-called [4] 154/19
51/17 51/23	75/6 86/21 86/23	41/13	purposes [22] 7/2 7/8	154/7 154/9 167/19	155/18 155/20 155/23
produce [4] 34/12	86/24 87/14 88/1	protection [15] 11/15	7/16 7/22 13/14 17/21	170/3 170/4	re-calls [2] 154/14
52/13 53/1 67/2	102/22 108/16 109/25	21/9 22/22 32/20 33/1	28/14 31/22 35/9	quick [1] 112/21	155/16
produced [8] 11/14	111/23 115/2 131/23	39/15 58/19 59/2 59/6	46/10 52/19 60/23	quick[y] 112/21 quickly [4] 2/11 5/6	re-issue [1] 155/25
32/22 34/8 52/14	132/10 142/13 154/8	60/8 60/15 61/19	61/5 65/5 68/22 68/23	23/24 167/7	re-test [1] 93/20
58/15 61/24 69/17	167/21	64/21 72/10 141/22	70/10 81/8 92/16 95/3	quite [29] 3/23 4/1	reach [1] 167/17
84/20	Professor Hill [4]	protein [7] 22/25	109/16 112/4	27/4 27/20 34/16	reaching [1] 74/19
producing [4] 34/1	15/1 27/11 40/16	23/15 24/16 24/18	purposes' [2] 28/9	36/17 62/17 67/13	reactions [6] 124/7
52/15 110/6 159/24	142/20	36/16 36/19 44/16	33/5	80/7 80/14 94/6 97/12	155/7 155/9 155/10
product [35] 4/2 6/22	Professor Lee [1]	protest [1] 149/11	pursue [1] 81/14	104/16 105/7 105/13	155/10 155/15
55/6 55/18 78/1 79/20	40/20	protocol [4] 13/24	pursued [1] 36/5	111/2 114/6 126/22	read [9] 47/16 62/25
120/3 121/24 124/2	Professor Preston [1]		push [1] 156/22	130/1 132/25 133/5	63/6 63/7 71/15 87/5
133/15 144/9 145/13	121/1	prove [1] 139/5	push-back [1] 156/22	137/18 147/15 148/13	102/5 104/18 129/12
145/15 154/14 154/25	Professor Preston's	proved [1] 124/9	put [22] 16/17 19/1	153/2 153/3 153/7	reading [1] 135/19
155/3 155/4 155/14	[2] 100/23 157/7	proven [1] 98/13	28/17 58/3 58/5 60/7	155/12 157/20	reads [4] 6/18 31/18
155/16 155/20 155/24	Profilate [1] 160/3	provide [12] 8/4 48/24	63/12 65/5 68/22	quote [1] 128/9	36/1 71/24
160/8 161/1 161/3	profile [2] 141/2	51/20 53/16 55/5 74/7	68/24 70/11 78/17	quoted [2] 104/14	real [4] 164/2 164/11
161/3 161/4 161/8	143/11	75/23 79/11 84/18	79/7 88/20 96/23	105/2	168/14 168/15
161/19 162/19 164/10	profit [7] 46/6 50/7	95/25 111/12 145/8	99/11 106/3 121/19		realise [4] 28/11 29/9
164/18 164/23 165/18	50/22 156/14 156/18	provided [11] 10/21		R	40/3 97/15
166/13 167/2	164/15 164/25	18/14 48/20 49/2	151/4	RA [4] 66/14 67/23	realised [6] 18/12
production [2] 17/11	prognosis [1] 97/24	55/11 58/13 63/23	puts [1] 121/19	68/1 69/3	29/5 31/13 69/4 111/9
42/12	programme [2]	74/4 78/20 79/3 146/1	putting [3] 60/24	ragbag [1] 154/10	112/18
products [63] 2/10	132/11 133/18	provides [2] 42/3	108/5 162/6	raise [2] 143/10	reality [1] 75/19
	progress [2] 66/15	91/18	pyrogen [1] 155/8		really [23] 17/6 18/10
					<u> </u>

(61) probabilities... - really

R	152/22	refused [6] 74/1 74/3	release [2] 21/3 21/8	reports [15] 65/6	142/10 145/7
	recollection [1]	86/2 86/12 86/12	released [1] 20/4	65/17 84/1 84/25	responses [2] 26/15
really [21] 37/23	122/13	118/15	releases [1] 138/22	95/20 104/17 109/21	163/11
71/17 73/2 91/8 92/21 97/7 99/16 105/19	recombinant [7] 3/8	regard [2] 39/15 40/25	relevance [2] 144/6	111/11 111/22 112/7	responsibility [2]
	51/25 149/3 149/8	regarded [4] 35/8	144/8	123/22 124/8 124/10	86/6 86/9
113/1 117/22 119/4	163/2 163/19 163/25	35/12 115/23 116/2	relevant [8] 16/5 30/3	124/17 155/6	responsible [1] 123/4
125/8 125/14 129/20	recommend [1] 84/12	region [1] 106/19	41/9 43/6 102/8	repositories [1] 93/3	rest [1] 29/23
130/16 130/22 130/25	recommendation [6]	regional [2] 47/18	102/22 145/9 145/14	representative [1]	restrictions [1] 1/8
140/24 145/14 147/19	2/19 2/20 3/15 7/12	47/25	reliable [1] 119/20	70/4	result [9] 30/23 83/22
162/23	10/14 85/2	regionally [1] 122/22	remain [3] 33/4 35/6	representatives [2]	95/4 95/11 108/21
reason [5] 46/24 66/2	recommendations [6]	registered [8] 46/23	137/10	87/8 87/11	110/6 124/6 149/8
101/12 128/3 145/5	6/10 10/22 11/19 33/2	50/4 50/21 77/24	remained [2] 47/3	request [18] 20/23	154/3
reasonable [8] 5/7	33/15 82/4	78/10 79/11 83/9	160/16	55,3 62,5 67/20 70/19	results [9] 41/18 42/2
25/10 59/4 60/2 60/3	recommended [1]	85/18	remaining [1] 34/5	71/14 71/23 71/25	42/5 89/6 89/8 90/5
74/19 75/16 152/1	62/6	registrants [1] 85/10	remains [3] 22/1	72/15 81/4 82/11	116/8 119/15 157/5
reasonably [3] 3/25	record [9] 3/24 28/7	registrar [2] 61/19	24/10 167/24	85/24 96/24 134/4	resume [1] 169/4
52/24 66/14	55/25 56/3 66/16 67/7	122/11	remember [24] 3/19	145/11 145/21 145/25	retained [1] 45/1
reasons [9] 15/18	116/8 143/25 144/17	registration [1] 85/15	4/9 14/18 16/8 19/9	146/3	retention [2] 44/11
19/1 125/5 133/14	record-keeping [1]	registrations [1]	19/13 25/2 27/6 27/19	requested [6] 65/16	44/12
144/9 147/22 150/4	143/25	85/12	32/13 38/11 38/16	80/9 81/7 144/24	retired [3] 28/23 56/21
161/20 162/3	recorded [8] 9/12	regret [1] 151/8	48/17 66/11 75/13	146/10 147/10	57/15
reassessed [3] 33/10	9/14 80/4 135/16	regular [5] 38/2 51/21	96/19 122/8 123/9	requesting [2] 65/7	retirement [1] 57/16
34/14 38/9	144/16 144/18 144/20	53/10 63/21 129/23	141/11 144/13 146/21	147/1	retrieval [1] 43/8
reassessing [2] 38/9	145/2	regularly [3] 77/18	148/9 155/21 162/22	requests [1] 71/16	retrospective [4]
39/14	records [23] 20/17	80/18 148/1	remission [1] 75/2	require [2] 61/1 61/7	41/21 42/24 43/14
reassessment [3]	33/18 56/9 73/4 80/12	regulated [4] 93/4	remission-rate [1]	required [6] 9/4 37/8	43/17
32/22 38/8 39/4	80/13 82/19 135/17	134/6 134/18 134/25	75/2	43/9 43/13 66/18	retrospectively [2]
recall [2] 26/15 161/3	135/19 143/21 144/3	regulations [1]	remotely [3] 1/10 87/9		44/13 61/11
recalled [1] 161/4	144/3 144/19 145/4	134/19	169/4	requirement [1] 124/3	
receipt [1] 28/3	145/20 146/1 146/4	regulators [1] 124/4	removed [3] 70/18		revenue [1] 3/7
receive [5] 18/8 51/10	146/5 146/8 146/17	regulatory [1] 124/3	70/18 70/21	57/13 115/11	reversion [1] 111/13
51/15 54/19 71/16	147/1 147/2 147/23	reissued [1] 62/3	repeat [5] 37/8 125/15		revert [1] 70/14
received [29] 4/20	recovered [1] 158/10	rejected [1] 73/21	126/1 130/17 130/20	rereading [1] 126/22	reverting [1] 101/21
8/13 8/16 9/10 9/11	redacting [1] 145/10	related [3] 31/5	repeated [1] 32/3	research [32] 46/12	review [5] 32/25
9/11 12/4 16/5 17/17	reduce [2] 125/11	102/13 124/1	repeatedly [2] 125/16	51/11 52/15 54/25	33/18 86/1 89/2 105/9
18/2 18/4 18/6 19/16	163/18	relates [2] 40/18 73/7	125/23	55/2 59/3 61/6 62/13	reviewed [5] 46/25
20/8 20/17 28/12	reduced [10] 44/11	relating [4] 20/4 40/21		62/19 64/12 64/13	57/18 62/1 63/20
29/22 33/3 33/8 35/7	67/12 114/5 124/15	42/15 73/4	replacements [1]	65/1 67/9 68/23 88/13	77/12
50/16 50/18 51/12	129/18 159/18 159/19	relation [39] 2/4 5/17	28/24	92/16 92/25 93/2 93/3	reviews [2] 126/21
54/14 56/1 62/7 62/23	160/22 164/12 165/8	7/12 12/13 16/1 18/21	report [36] 9/6 52/14	94/5 94/22 95/2 115/8	149/10
71/15 96/3	reduces [1] 55/18	19/14 20/19 21/25	55/6 66/15 66/19		revise [1] 81/1
receiving [2] 21/22	reducing [1] 136/9	26/16 30/2 35/1 38/5	67/23 81/15 82/12	116/14 117/17 118/23	
23/10	reduction [2] 129/6	42/24 43/13 43/16	82/15 82/17 82/18	118/24 119/7 119/14	68/7 71/3
recent [6] 29/2 55/14	129/15	45/3 51/25 52/1 58/9	83/14 84/19 84/24	residents [1] 101/11	revising [1] 71/2
79/12 138/4 138/21	refer [6] 19/25 27/18	58/17 68/8 68/9 68/22	87/1 87/2 87/16 95/15	residual [1] 160/16	RICHARD [2] 2/1
164/1	43/6 89/12 96/3 143/8	69/20 88/6 91/10	102/14 103/25 104/3	resisted [1] 57/19	170/2
recently [11] 4/18	reference [14] 2/20	91/14 93/19 97/2	105/15 105/16 106/1	resolve [1] 142/25	Richards [7] 1/6 1/15
47/16 50/12 69/13	15/5 17/23 36/6 41/19	100/5 100/14 101/18	106/10 108/5 110/15	resolved [2] 36/9	1/24 2/2 108/14
96/20 100/12 105/9	47/20 47/21 47/25	123/11 132/11 138/8	110/24 112/9 112/13	75/10	167/20 170/3
112/16 115/17 163/24	48/3 48/8 48/14 51/24	140/3 159/17 162/1	123/25 124/3 126/18	respect [1] 18/25	rid [1] 36/19
166/15	103/22 109/14	relationships [1]	132/20 147/2 150/8	respectively [1] 103/6	
recipient [2] 5/21	referred [10] 12/19	156/6	reported [16] 5/21	respects [1] 63/25	18/9 20/15 22/10 26/1
62/24	17/9 32/16 39/14	relative [7] 41/23 42/3	12/3 21/24 22/2 36/2	respond [1] 104/8	34/18 36/25 38/11
recipients [11] 5/10	47/19 53/21 87/2	42/7 55/15 73/22	43/3 44/17 81/21 83/6	responded [2] 20/22	45/9 49/10 51/19 54/3
7/15 7/20 8/1 9/23	101/23 122/2 142/12	75/22 129/7	83/16 83/17 83/18	139/11	57/17 60/12 61/18
10/9 10/14 22/2 32/24	referring [5] 28/1	relatively [10] 44/25	83/22 84/10 103/20	responding [1]	61/23 65/17 69/9
127/1 130/19	47/19 102/21 104/1	103/18 104/23 111/14	139/25	143/19	69/11 70/17 72/17
recognise [2] 112/9	107/5	112/8 127/13 128/3	reporting [11] 10/17	response [17] 2/4 8/5	89/24 95/15 102/18
135/6	refers [2] 21/20 40/20	133/14 137/8 146/23	60/24 83/3 84/4	19/17 57/5 62/1 62/8	106/21 106/23 109/9
recognised [8] 63/22	refilled [1] 57/25	relatives [5] 42/22	105/17 110/25 123/19	66/22 67/20 81/15	109/25 114/14 118/13
87/7 87/10 136/12	refusals [1] 74/13	43/19 65/16 92/17	141/3 149/18 150/2	81/22 82/10 85/2	131/3 132/2 138/15
142/18 143/5 143/7	refuse [2] 13/12 68/15		152/17	85/23 92/10 109/11	151/19 151/21 156/3
	• • • • • • • • • •				
\	•				

(62) really ... - right

[		I	[]		
R	164/7	94/9 94/10 94/22 95/1	48/18 74/15 91/12	selecting [1] 49/5	seven [2] 80/4 115/24
	routes [3] 5/5 27/17	95/2 95/21 116/12	102/18 105/16 112/9	selection [5] 122/6	seventh [1] 115/24
right [2] 157/3	27/22	samples [13] 41/25	113/20 113/22 146/12	125/12 129/9 129/10	seventies [1] 112/15
164/14	routine [1] 89/2	88/6 88/9 89/3 89/5	156/5	129/17	several [9] 7/6 23/3
right-hand [1] 102/18	row [1] 64/8	91/10 91/24 92/4	secondary [1] 24/14	send [6] 13/18 14/6	36/23 55/1 57/3 68/11
rights [2] 60/7 60/11		92/24 93/2 93/7 93/15		14/15 23/22 25/18	
rise [3] 5/2 28/22	Royal [13] 3/1 31/4		seconder [1] 49/16		82/3 147/16 160/15
128/17	31/5 31/6 31/20 32/6	120/21	secondly [3] 68/23	146/5	severe [7] 79/4 80/17
risk [74] 2/4 6/14 6/20	32/10 32/13 37/24	sampling [1] 88/12	87/7 144/11	sending [3] 64/10	106/18 137/7 139/8
6/23 7/1 7/10 7/19	48/5 91/13 159/10	satisfy [1] 124/2	secret [1] 59/17	67/17 78/13	155/12 165/5
8/25 9/3 9/7 13/6	159/15	saved [1] 164/20	secretary [5] 49/24	sends [2] 49/13 71/20	severely [3] 80/17
13/13 17/2 17/3 17/21	Royal Free [11] 31/4	saving [1] 164/4	52/7 70/4 70/7 75/14	senior [2] 122/11	103/15 108/19
18/17 18/18 23/20	31/5 31/6 31/20 32/6	saw [4] 38/18 91/1	section [9] 19/17	140/13	severity [1] 81/6
23/23 27/16 28/9	32/10 32/13 37/24	96/4 127/1	22/22 66/10 67/21	sense [3] 89/25	shall [4] 86/19 87/15
28/14 28/17 29/10	48/5 159/10 159/15	say [47] 1/5 16/21	68/19 70/1 81/15	154/17 165/12	101/14 131/18
	rugby [1] 137/13	24/23 44/12 47/9	81/22 128/12	sensible [1] 131/7	shape [1] 147/21
29/13 29/19 30/16	rule [8] 57/5 61/25	73/16 74/20 77/10	section 251 [3] 66/10	sensitive [2] 92/7	share [1] 71/4
30/18 30/24 31/14	66/22 67/20 85/23	77/16 79/13 81/2 83/2	68/19 70/1	159/8	shared [2] 55/1
31/22 32/1 32/22 33/1	96/24 109/12 123/21	83/24 89/15 89/18	sections [1] 43/6	sensitivity [1] 125/10	159/15
33/5 34/14 34/15 35/9	rule 9 [7] 61/25 66/22	89/24 91/7 94/6 95/23	sector [1] 126/2	sent [20] 14/3 14/11	sharing [1] 61/6
36/12 37/3 38/9 38/10	67/20 85/23 96/24	96/15 99/8 99/11	secure [1] 163/20	15/2 15/17 17/15	she [7] 52/24 56/21
38/12 39/7 39/8 39/9	109/12 123/21	99/13 99/24 100/8	securely [1] 61/5	19/24 30/10 31/17	57/15 107/10 110/8
39/10 39/14 40/4 40/6	run [1] 52/3	100/9 101/14 105/14	see [77] 1/10 1/10	33/12 33/19 41/25	110/10 131/10
55/2 73/23 74/8 74/23	running [4] 52/8 56/4	125/1 127/4 130/2	1/11 6/9 6/17 6/25	63/2 65/17 75/12	she's [1] 108/24
77/6 78/3 79/18 79/19	57/14 137/14	136/4 137/25 138/9	7/11 10/13 11/1 11/7	86/24 142/9 147/23	sheet [5] 11/14 11/24
80/21 83/10 83/11	rushed [1] 14/21	143/24 149/6 149/14	11/16 11/21 12/8	151/6 152/6 152/8	13/18 91/16 122/14
99/10 101/24 106/5		150/25 153/5 153/9	12/11 12/18 12/22	sentence [4] 77/10	sheets [1] 66/21
113/2 117/1 118/23	S	156/17 156/22 159/19	13/4 13/10 14/1 14/24	106/16 107/5 107/10	Sheffield [13] 48/4
127/17 129/13 129/15	sadly [3] 98/9 158/14	166/22 167/22 167/24	15/3 15/4 17/8 17/10		101/20 102/23 104/9
129/16 129/18 155/9	161/2	168/23	17/25 20/11 20/17	sentences [1] 103/2	
167/14				separate [7] 68/21	112/20 119/8 120/25
risk' [3] 7/7 7/15	safe [1] 36/24	saying [5] 98/2 99/25	20/24 21/2 22/21 24/3	68/25 73/4 86/16	121/25 132/11 133/19
28/11	safeguard [1] 119/11	110/8 152/20 160/21	25/19 26/2 27/13	88/22 106/6 112/23	144/10 144/16 157/7
risks [2] 33/22 135/14	safeguards [2] 119/9	says [12] 4/17 25/19	29/16 31/16 32/19	separately [1] 41/5	short [8] 39/23 45/17
risky [1] 125/22	121/3	26/7 33/15 40/24	32/25 42/15 42/16	September [14] 6/7	53/9 87/6 97/13
rival [1] 58/5	safer [2] 119/2 166/13	42/25 92/11 103/1	42/20 44/22 46/4	10/23 11/3 11/17	111/14 132/7 135/24
Rizza [7] 56/20 87/2	safest [2] 125/16	103/8 107/10 146/13	47/17 52/18 62/1 63/3	11/22 14/2 14/7 14/9	shortly [1] 51/9
101/25 102/12 105/16	125/22	152/10	63/19 72/2 76/11 77/3	14/12 14/25 17/11	should [57] 5/7 5/16
110/25 113/3	safety [8] 3/24 6/17	scandal [1] 44/10	82/15 89/24 91/15	46/4 84/14 152/7	7/14 7/17 7/18 7/21
Rizza's [1] 110/15	116/17 160/19 166/7	scanty [2] 72/7 76/3	98/5 98/10 102/12	September 1991 [1]	7/23 9/16 15/14 17/14
road [1] 166/2	166/12 166/14 166/19	scheme [5] 74/9	102/23 103/1 106/10	46/4	33/4 33/9 33/11 33/20
role [4] 59/12 121/2	said [21] 38/3 52/24	139/17 139/19 140/17	109/14 109/17 109/19	September 1992 [1]	34/13 37/3 40/6 43/4
135/4 136/8	58/16 66/5 82/15 88/6	141/7	110/15 112/13 116/5	84/14	43/11 50/10 58/22
roles [1] 45/22	100/7 109/9 113/5	schemes [1] 75/7	125/9 126/18 127/9	September 2006 [1]	61/9 61/9 61/14 62/6
roll [2] 112/17 149/7	115/25 126/12 143/4	scientific [1] 134/15	130/8 130/10 137/1	152/7	62/8 62/8 64/12 70/21
roll-out [1] 112/17	143/20 150/20 151/7	scope [1] 164/21	146/23 154/24 157/3	series [4] 58/20 61/24	
room [4] 1/14 68/3	153/1 157/8 164/3	scored [1] 166/6	163/3 165/11	66/20 139/24	75/17 76/4 77/7 77/8
87/8 159/12	164/6 164/22 167/13	Scotland [3] 53/20	seeing [3] 71/25	serious [3] 97/25	82/1 82/5 84/14 85/19
Rosemary [8] 52/6	sake [1] 82/11	119/24 120/2	87/20 98/14	150/12 150/14	92/3 104/18 109/10
52/7 56/16 104/17	salary [1] 52/6	Scott [1] 87/12	seek [1] 43/19	served [1] 53/18	116/9 135/8 135/18
	same [27] 1/11 3/18	Scottish [1] 120/3	seeking [4] 41/17	service [9] 5/13 5/14	135/23 135/25 139/9
104/19 105/3 107/4	11/22 14/16 15/12	scratching [1] 75/20	43/20 70/12 88/3	20/5 37/16 48/10	139/16 144/1 148/19
110/24	20/18 21/18 30/21	screen [8] 2/15 45/25	seem [2] 25/2 133/16	48/20 48/24 95/25	152/1 158/16 168/5
Rosemary Biggs [1]	32/9 47/3 55/12 56/14	106/3 106/9 114/11	seemed [8] 27/2 27/8	130/14	168/23 169/10
107/4	59/12 64/7 80/2 85/21	137/19 143/15 151/4	40/3 75/16 124/7	services [1] 12/15	shouldn't [1] 16/23
Rosemary Biggs' [1]	89/3 94/21 97/4 100/7	screened [1] 77/23	124/20 139/22 147/5	set [18] 6/9 10/15	show [6] 9/8 9/9 41/14
110/24	104/16 116/20 119/1	scroll [1] 102/25	seems [3] 47/20	12/17 29/17 34/5 46/5	73/22 144/23 144/25
rosier [1] 110/21	120/7 120/14 121/6	scrupulous [1] 144/1	91/15 108/20	47/10 66/13 72/9	showed [5] 26/16
roughly [2] 119/7	166/1	scrutinise [1] 78/14	seen [11] 14/10 39/2	74/15 76/16 77/3	126/19 129/6 130/6
162/22	sample [20] 42/23	se [1] 52/4	39/3 51/24 62/15 63/7	78/11 85/2 134/14	148/13
round [6] 107/25	88/11 88/19 88/20	second [22] 5/22 6/13	65/21 65/24 80/18	134/17 136/20 165/22	showing [3] 105/4
162/6 162/8 163/17	88/21 89/10 91/17	12/6 13/25 21/16 23/1	101/14 153/6	sets [2] 12/2 114/9	105/22 144/21
164/12 165/23	91/19 91/20 91/22	26/17 28/6 31/10	selected [2] 81/8	setting [1] 6/10	shows [2] 127/16
route [3] 4/25 28/5	92/12 93/11 93/20	35/22 35/25 48/17	119/19	settled [1] 75/15	161/16
L	l	L			

(63) right... - shows

S	140/12 140/20	166/21 167/12	specialist [1] 78/7	115/10 149/2 151/5	103/25 115/9 115/14
shuffled [1] 148/12	slowed [1] 67/13	somebody [3] 148/3	specific [14] 6/19	151/7	115/17 115/19 115/24
sic [1] 152/13	slower [1] 112/18	150/8 158/9	11/8 31/2 44/21 62/11	statements [1] 39/19	116/2 116/3 116/10
sickle [1] 128/22	slowly [2] 148/5 167/5	someone [6] 13/13	67/3 91/13 93/23 96/1	statistic [1] 103/9	116/15 116/18 116/20
sides [1] 101/14	small [9] 27/5 31/2	90/17 100/18 140/8	99/21 126/25 138/6	statistical [2] 109/11	116/23 116/24 117/25
sign [4] 42/8 146/6	80/20 80/23 82/9	151/25 159/12	145/16 155/7	127/16	118/10 119/24 120/12
146/7 146/7	86/13 103/19 109/21	someone's [1] 100/22	specifically [7] 42/5	statisticians [1]	120/16 160/4
1	156/14	something [22] 32/15	44/23 45/4 82/21	121/13	subconscious [2]
significance [4] 23/12	smaller [1] 110/16	37/12 47/15 50/8	91/23 124/1 143/1	statistics [2] 46/11	119/12 119/13
24/10 24/21 114/8	sneaking [1] 124/16	50/11 53/1 62/3 79/24	specifics [1] 138/7	108/18	subject [4] 73/5 84/17
significant [7] 5/4	so [253]	89/10 90/3 90/11	specimens [1] 43/8	status [6] 23/20 28/11	126/7 127/15
78/6 97/22 97/24	Sobi [1] 55/15	93/12 94/12 104/6	spending [1] 148/9	83/16 89/9 92/22	subjected [1] 125/9
111/12 111/16 111/16	societies [1] 50/21	119/10 120/22 123/16	spleen [3] 24/20	100/22	subjects [1] 119/18
significantly [5] 5/11	society [12] 59/18	136/19 136/20 136/20	44/16 44/21	stepping [1] 136/21	submission [2] 41/8
04// 104/12	63/13 63/14 73/15	158/13 164/20	spoke [2] 16/15 141/5	steps [6] 10/15 19/5	106/8
signified [1] 148/15	74/10 128/13 137/23	sometimes [13] 1/22	sponsor [1] 134/4	85/1 134/20 160/17	submit [1] 30/5
signs [3] 21/21 24/16	138/11 140/11 142/1	40/3 54/24 55/3 55/9	sponsorship [6]	160/18	submitted [6] 56/8
130/6	143/18 152/7	66/7 72/8 72/18 80/12	50/24 54/16 134/5	Stevens [1] 73/12	68/25 69/25 76/11
silence [2] 152/21	Society's [3] 138/17	80/13 155/9 156/8	134/7 134/10 134/21	sticky [1] 36/17	87/13 92/9
152/25	138/20 139/2	156/24	spontaneous [1] 75/1	still [20] 3/1 16/25	subsequent [1] 57/7
similar [4] 43/11	soft [4] 127/14 128/5	somewhat [1] 105/21	Spooner [4] 52/6 52/7	21/21 43/12 49/12	subsequently [10]
110/23 158/13 165/9	129/7 129/7	somewhere [1]	57/14 102/12	67/16 70/17 70/20	4/22 6/12 20/3 48/16
Similarly [3] 49/23	software [2] 57/9	127/14	sports [1] 137/10	73/4 74/11 81/4	48/22 62/13 70/3
91/1 151/25	66/24	soon [2] 77/7 158/7	spotted [1] 27/2	100/19 111/5 112/10	77/13 81/25 127/2
simple [1] 56/22	sold [1] 3/10	sorry [13] 35/15 47/14	spreadsheets [2] 34/8		substantial [1] 3/17
simply [2] 117/7		49/10 104/4 108/14	78/20	134/4 165/20 168/15	succeed [2] 139/5
161/7	some [118] 1/15 2/8 2/24 3/16 4/1 6/5 8/3	118/22 122/15 129/3	St [1] 48/5	stir [1] 20/21	139/22
since [16] 28/10 29/1	10/20 15/13 15/17	129/4 131/2 148/23		stop [2] 106/13 162/6	success [1] 139/4
29/10 50/1 50/2 56/6		158/23 158/24	staff [4] 1/16 15/10 24/4 52/8		
59/3 69/3 70/23 72/10	18/13 19/10 20/21			stopped [2] 64/9 163/25	successful [2] 159/24 160/8
81/19 91/2 101/5	26/18 26/18 27/3 28/9	sort [18] 29/12 29/13 38/21 44/15 55/21	staffed [1] 80/10		
103/18 105/2 106/20	28/10 28/14 29/19		stage [6] 48/3 48/13	storage [1] 91/24	such [16] 18/10 43/14
single [9] 38/20 89/15	29/20 30/15 30/23	59/12 67/24 80/14	92/17 93/11 162/7	store [5] 92/12 92/14	47/22 56/3 71/16
89/23 125/24 135/6	31/13 37/21 38/1	93/5 99/9 110/25	162/20	92/24 93/15 165/18	77/20 81/5 83/5 96/7
144/9 144/14 161/19	39/19 40/11 46/20	118/1 136/15 137/14	stages [2] 51/8 53/21	stored [12] 88/21	97/13 116/16 119/19
162/4	51/10 51/24 52/1	152/21 161/24 166/12	staggered [1] 164/16	91/10 91/20 92/1 92/2	139/19 145/22 149/9
sir [11] 45/8 45/14	58/15 59/6 65/20	167/12	stain [1] 44/21	92/5 93/2 94/9 94/21	164/7
86/15 86/22 112/23	65/25 69/1 69/23 74/2	sorting [1] 67/16	stall [3] 50/24 134/14	95/1 95/2 106/6	suddenly [1] 155/6
131/6 131/20 154/7	75/13 75/24 77/24	sorts [2] 65/14 134/16		storing [1] 93/7	sue [1] 148/20
154/9 169/2 170/4	79/14 79/24 80/2 80/3	sought [2] 64/2 141/1	Stallibrass [1] 52/22	straight [1] 3/8	suffer [1] 13/7
sit [1] 89/22	82/23 85/5 85/8 85/11	Soumik [29] 2/15 4/14		strange [1] 13/9	suffered [2] 151/15
site [1] 140/7	85/25 86/12 87/3	6/4 10/24 11/12 13/22		strategic [3] 161/20	153/21
sitting [1] 169/3	88/19 89/4 89/16	19/18 20/25 21/10	standards [1] 46/7	161/24 162/3	suffering [4] 106/18
situation [10] 4/10	89/17 90/6 92/17	22/19 26/3 32/18	start [12] 17/16 67/17	strategy [1] 161/23	107/16 140/23 154/2
9/14 18/11 37/18	92/25 93/11 95/3	35/20 41/16 42/14	104/4 116/21 117/4	stream [1] 53/10	sufficient [1] 71/22
60/20 67/10 69/25	98/23 99/9 100/17	42/19 45/25 71/9 73/6	123/2 129/19 162/23	street [2] 60/16 60/17	suggest [1] 2/13
86/5 96/25 139/16	100/24 101/17 111/2	76/15 77/1 82/14	162/24 163/6 169/10	strengthened [1]	suggested [4] 64/11
situations [3] 69/16	114/13 119/11 124/6	91/11 102/19 106/5	169/14	22/11	68/21 104/18 141/6
117/9 120/2	124/17 124/18 126/18	106/12 137/21 146/12		strong [2] 10/13	suggesting [1] 36/21
six [3] 10/18 49/3	127/4 128/3 131/6	148/24	56/16 59/1 69/19	138/16	suggestion [2] 141/9
115/24	131/18 132/21 133/7	soundproof [1]	70/23 97/8 137/16	strongest [1] 119/14	153/4
six years [1] 49/3	133/10 137/6 138/12	159/11	162/21 163/9 165/4	strongly [4] 14/21	suing [1] 141/2
skipping [1] 77/10	138/17 139/16 141/7	source [6] 11/5 50/6	starting [2] 60/13	68/20 83/3 84/12	sum [1] 72/12
Skipton [10] 64/15	144/10 144/19 145/9	50/22 73/2 105/4	109/2	struck [2] 5/4 67/11	summarise [1] 90/13
73/8 73/9 73/13 73/19	148/7 151/10 152/21	132/19	starts [1] 1/6	student [1] 108/9	summary [4] 30/6
74/9 74/17 75/12	153/19 153/19 154/8	sourced [5] 17/17	State [3] 70/4 70/7	studied [1] 117/23	58/22 58/23 106/15
75/18 79/7	154/11 154/17 155/17	23/3 30/25 31/1 31/24	75/14	studies [6] 40/21	summing [1] 160/20
Skipton Fund [4] 73/8	155/23 157/9 157/9	sources [1] 134/7	stated [1] 75/14	40/25 105/4 114/21	summoned [1] 58/4
73/9 75/12 75/18	157/10 157/10 156/2	spaced [1] 38/20	statement [20] 2/8 6/8		superfluous [1] 22/17
slicing [1] 44/21	158/8 159/5 159/14	speak [2] 8/23 60/19	19/3 24/7 30/11 32/6	study [30] 40/12	supplement [1] 84/25
slight [1] 44/25	160/16 160/21 160/22	speaking [1] 157/4	40/11 84/9 88/7 95/23	41/11 41/21 42/16	supplied [4] 5/12 5/15
slightly [4] 48/1 98/11	161/7 162/20 163/6	speaks [1] 117/20	99/19 99/20 100/8	42/21 42/24 43/7	145/15 154/17
anging [4] 40/130/11	165/20 166/10 166/19	special [1] 7/20	100/13 102/10 115/8	43/17 44/8 45/7	supplier [4] 145/15

(64) shuffled - supplier

S	140/5	90/20 90/23 96/7	90/16 90/21 90/23	their [98] 3/16 7/9	157/19 159/13 160/24
	sympathy [1] 139/12	96/16 97/3 99/24	96/5 96/6 96/8 96/9	14/15 18/21 20/8	162/6 163/9 164/9
supplier [3] 154/18	symptoms [2] 13/9	113/24 141/5 145/7	98/6 98/7 98/12 100/4	20/17 25/24 28/11	166/3
162/9 165/15	24/16	159/8	125/3 125/10	28/13 29/4 32/7 33/9	thematic [1] 115/6
suppliers [7] 53/5					
53/24 54/1 135/12	system [8] 57/11	telling [2] 26/19 95/14		34/8 34/14 38/15 39/6	
163/21 164/4 164/8	119/25 122/21 123/13	tells [6] 2/8 2/24 6/8	textbooks [1] 133/3	39/7 43/5 43/19 49/21	75/22 84/15 132/14
	123/19 159/9 162/25	19/3 21/3 72/19	than [45] 5/1 16/2	55/4 55/6 55/16 55/18	then [160] 2/23 3/17
supplies [2] 165/15	163/13	template [1] 25/15	30/25 31/9 38/8 49/14	56/7 60/7 60/12 61/23	4/11 5/22 6/4 6/16
165/24	systematically [1]	ten [6] 38/20 87/18	49/15 50/14 54/12	62/25 63/9 63/9 64/16	
supply [5] 133/15	78/9	87/19 106/25 130/2	64/11 72/5 72/8 74/17	65/13 65/16 65/17	7/24 8/5 11/6 11/12
135/8 163/19 163/23		1			
163/25	systems [1] 121/3	169/15	79/17 83/6 84/9 88/13	67/20 67/24 68/8 69/1	11/21 12/1 12/6 12/13
supplying [1] 163/25	Т	ten minutes [1] 87/18	89/18 98/4 99/3	70/4 70/18 70/20	12/17 12/21 12/21
		ten o'clock [1] 169/15	108/20 108/21 111/9	71/22 72/17 72/22	13/2 13/4 13/14 13/22
support [15] 49/21	table [5] 11/4 104/20	tend [1] 89/3	112/18 113/25 115/5	72/24 74/12 75/21	14/4 14/7 15/4 15/9
49/22 51/17 54/20	109/14 113/9 127/15	tendency [1] 136/13	116/4 119/2 120/13	78/1 80/6 80/12 80/19	15/20 16/17 17/14
55/1 74/12 75/3 75/18	table III [1] 113/9	tenders [1] 166/5	122/23 124/21 128/1	81/6 84/16 89/9 94/6	17/22 17/25 19/18
76/4 111/12 150/10			1		
157/15 157/19 157/22	tables [1] 103/13	tenfold [1] 129/6	129/23 131/4 135/20	97/18 100/18 109/12	20/10 20/18 20/24
164/6	take [37] 1/22 10/15	tens [1] 39/2	151/1 152/15 153/24	111/7 112/17 116/5	21/2 21/10 21/20
	23/21 33/16 35/2 39/4	term [1] 167/8	154/23 154/25 155/3	124/3 130/21 132/19	22/18 22/18 23/1 23/7
supported [2] 52/5	41/13 45/10 45/11	terms [24] 11/5 12/23	160/2 160/11 163/7	132/21 133/19 133/20	23/12 23/18 23/20
158/19	58/22 60/13 62/16	30/17 34/6 34/24 35/5	166/13	134/23 136/13 138/14	23/25 24/3 26/2 27/10
supporting [1] 1/14	63/7 64/9 68/13 75/24	35/6 35/11 49/1 49/10	thank [22] 45/14 77/2	139/12 139/14 140/22	28/6 29/3 29/10 29/16
suppose [3] 27/7	86/17 86/18 88/8		87/21 95/19 102/25		
129/25 130/2		69/23 83/1 88/16		140/22 141/2 142/3	30/12 31/17 32/16
sure [16] 9/20 27/20	88/11 88/12 88/16	89/12 90/16 105/20	103/12 107/18 109/13	143/11 144/3 145/4	33/12 33/19 34/6
45/6 48/6 49/7 61/22	89/3 93/11 97/18	121/1 122/6 126/14	115/1 131/5 141/16	146/1 147/10 147/11	34/11 34/20 34/24
	120/21 121/8 121/11	138/25 142/11 143/4	155/13 155/19 156/4	147/19 148/1 149/18	35/11 35/22 36/6
69/8 95/20 100/21	122/25 130/11 131/18	153/11 154/21	158/20 159/16 167/18	150/1 150/10 151/14	40/23 41/15 42/3 42/7
104/21 138/13 147/15	131/23 131/24 152/1	test [42] 9/17 9/18	168/11 168/22 168/24	151/17 152/12 153/22	47/9 47/17 49/16
153/2 153/15 160/25	160/2 165/19 167/14	18/11 74/17 83/22	169/14 169/15		
168/25				153/23 155/24 157/5	49/19 49/21 52/9 53/6
surely [2] 139/15	taken [21] 7/12 7/21	89/15 89/16 89/23	thanked [1] 26/19	162/6 164/10 166/4	56/17 57/7 57/15 58/6
144/7	12/13 12/15 19/5	90/25 91/5 91/7 93/11	that [881]	them [114] 3/3 3/4 4/4	
	28/24 32/21 41/6	93/20 93/25 94/10	that I [11] 25/3 45/6	8/14 12/10 14/11	66/8 69/12 69/19
surface [1] 153/21	41/12 43/11 59/20	95/6 95/7 95/8 95/9	57/11 62/11 64/16	16/16 16/21 17/4	69/22 73/14 74/15
surgery [12] 9/1 9/5	73/7 84/24 85/1 88/15	95/25 96/16 97/4 97/8	68/12 72/3 112/6	18/12 19/1 19/2 22/23	74/20 76/7 76/23 77/1
29/11 29/12 29/13	90/19 95/1 99/5	97/10 97/19 98/22	141/17 159/10 159/14	24/6 25/23 26/14	77/10 77/13 77/14
29/14 36/23 39/22	134/20 136/5 159/11	99/12 99/17 99/25	that I dealt [1] 141/12		78/5 78/11 78/14
40/7 127/4 130/1				26/19 26/20 27/8 29/3	
130/5	takes [2] 49/16 113/8	100/11 101/9 101/11	that is [18] 2/19 55/14		
surgical [3] 8/23	taking [4] 60/1 89/10	116/16 125/20 126/25	58/23 59/23 72/2 72/9	55/5 55/7 56/9 57/20	83/14 83/24 84/12
	91/24 148/17	128/10 130/8 130/10	72/13 96/11 108/7	58/13 60/20 62/4 62/9	85/18 87/7 87/20
39/12 127/4	talk [6] 2/23 52/23	157/6 158/5 158/5	112/22 117/24 119/23	64/2 64/6 64/12 65/10	89/19 90/5 91/18
surprised [1] 144/2	129/3 131/11 138/6	158/18	121/7 121/16 121/18	65/20 65/23 66/3 66/6	91/20 93/15 95/8
surprising [1] 163/5	138/22	tested [29] 13/8 76/19		66/23 67/5 68/5 68/12	
Surprisingly [1]	talked [4] 98/3 125/15	76/24 77/7 77/8 77/15			100/12 100/25 101/17
103/14			that it [1] 5/15	69/3 71/14 71/19	
surrounding [1] 25/8	136/17 144/13	82/5 83/19 83/22 84/4	that's [58] 1/20 2/12	71/20 71/22 72/6	103/7 103/22 107/21
surveillance [5] 40/12	talking [11] 1/21 1/23	84/10 84/14 86/3 86/4	5/24 9/12 13/6 13/11	72/19 78/13 78/21	107/24 109/3 109/14
41/21 42/1 42/16	30/4 44/20 99/22	86/12 90/10 91/19	13/11 16/7 17/22 18/9	78/21 79/6 80/8 80/14	110/14 113/10 118/3
	99/23 100/9 126/14	94/16 98/17 98/18	26/1 30/7 35/15 43/23	81/1 85/16 86/4 89/8	120/22 121/16 123/3
116/23	140/14 156/6 157/5	98/20 100/15 100/17	44/9 49/10 52/2 54/3	89/9 89/20 90/18	124/21 126/12 127/8
survey [1] 164/16	talks [2] 12/8 13/2	101/1 101/10 101/15	55/21 55/22 62/21	90/19 90/20 90/23	130/18 131/8 133/15
suspect [7] 3/3 32/2	target [1] 140/21			91/5 91/5 91/6 92/8	
59/19 83/3 83/5		124/22 125/24 155/8	64/1 82/15 85/24		133/23 135/25 137/19
131/16 149/11	tea [1] 132/1	testing [33] 73/25	89/23 92/16 93/16	93/16 94/18 96/16	138/6 138/9 139/23
suspected [2] 21/22	team [1] 1/14	75/5 76/25 80/23 81/4	94/24 95/15 98/9	96/17 96/20 97/3	146/16 147/12 148/12
	tears [1] 153/20	82/4 91/14 91/25 92/6	100/16 102/5 102/25	98/19 98/24 98/25	148/15 149/14 152/9
123/13	technical [1] 57/13	92/17 92/22 93/19	106/21 107/4 107/6	99/5 99/11 100/23	155/15 155/25 162/20
suspended [1] 150/13	technically [1] 57/9	94/3 94/12 94/14	114/15 116/17 116/23	120/5 120/11 123/2	163/10 165/15 169/11
			117/20 117/21 117/24	127/9 128/21 130/10	theoretical [4] 6/2
suspicious [1] 167/3		94/20 95/5 95/22 96/1		12110 120/21 100/10	and the second s
	technicians [1] 1/15	94/20 95/5 95/23 96/1		120/11 126/16 126/10	10/2 10/16 24/22
suspicious [1] 167/3 sustainable [1] 52/12	technicians [1] 1/15 Technology [2] 59/10	96/2 96/2 97/1 97/3	119/4 122/2 124/4	130/11 136/16 136/18	10/2 18/16 24/22
suspicious [1] 167/3 sustainable [1] 52/12 Sweden [1] 133/10	technicians [1] 1/15 Technology [2] 59/10 59/14	96/2 96/2 97/1 97/3 97/7 97/9 98/4 99/21	119/4 122/2 124/4 125/14 126/17 130/24	138/13 146/6 147/11	theory [2] 94/10
suspicious [1] 167/3 sustainable [1] 52/12 Sweden [1] 133/10 swimming [1] 137/15	technicians [1] 1/15 Technology [2] 59/10 59/14 telephone [1] 15/13	96/2 96/2 97/1 97/3 97/7 97/9 98/4 99/21 100/3 100/5 100/14	119/4 122/2 124/4 125/14 126/17 130/24 131/5 131/15 136/2	138/13 146/6 147/11 147/23 147/24 148/4	<b>theory [2]</b> 94/10 121/19
suspicious [1] 167/3 sustainable [1] 52/12 Sweden [1] 133/10 swimming [1] 137/15 switch [1] 2/9	technicians [1] 1/15 Technology [2] 59/10 59/14	96/2 96/2 97/1 97/3 97/7 97/9 98/4 99/21	119/4 122/2 124/4 125/14 126/17 130/24	138/13 146/6 147/11	theory [2] 94/10
suspicious [1] 167/3 sustainable [1] 52/12 Sweden [1] 133/10 swimming [1] 137/15 switch [1] 2/9 switched [1] 4/7	technicians [1] 1/15 Technology [2] 59/10 59/14 telephone [1] 15/13 television [1] 149/19 tell (46) 16/21 17/4	96/2 96/2 97/1 97/3 97/7 97/9 98/4 99/21 100/3 100/5 100/14	119/4 122/2 124/4 125/14 126/17 130/24 131/5 131/15 136/2	138/13 146/6 147/11 147/23 147/24 148/4	<b>theory [2]</b> 94/10 121/19
suspicious [1] 167/3 sustainable [1] 52/12 Sweden [1] 133/10 swimming [1] 137/15 switch [1] 2/9	technicians [1] 1/15 Technology [2] 59/10 59/14 telephone [1] 15/13 television [1] 149/19 tell [16] 16/21 17/4	96/2 96/2 97/1 97/3 97/7 97/9 98/4 99/21 100/3 100/5 100/14 124/24 130/15 168/20 tests [18] 42/6 89/13	119/4 122/2 124/4 125/14 126/17 130/24 131/5 131/15 136/2 138/16 144/11 145/18 151/3 156/3 166/23	138/13 146/6 147/11 147/23 147/24 148/4 148/8 148/8 148/12 148/12 151/16 153/5	theory [2] 94/10 121/19 therapeutic [1] 105/20
suspicious [1] 167/3 sustainable [1] 52/12 Sweden [1] 133/10 swimming [1] 137/15 switch [1] 2/9 switched [1] 4/7	technicians [1] 1/15 Technology [2] 59/10 59/14 telephone [1] 15/13 television [1] 149/19 tell (46) 16/21 17/4	96/2 96/2 97/1 97/3 97/7 97/9 98/4 99/21 100/3 100/5 100/14 124/24 130/15 168/20	119/4 122/2 124/4 125/14 126/17 130/24 131/5 131/15 136/2 138/16 144/11 145/18	138/13 146/6 147/11 147/23 147/24 148/4 148/8 148/8 148/12	theory [2] 94/10 121/19 therapeutic [1] 105/20
suspicious [1] 167/3 sustainable [1] 52/12 Sweden [1] 133/10 swimming [1] 137/15 switch [1] 2/9 switched [1] 4/7	technicians [1] 1/15 Technology [2] 59/10 59/14 telephone [1] 15/13 television [1] 149/19 tell [16] 16/21 17/4	96/2 96/2 97/1 97/3 97/7 97/9 98/4 99/21 100/3 100/5 100/14 124/24 130/15 168/20 tests [18] 42/6 89/13	119/4 122/2 124/4 125/14 126/17 130/24 131/5 131/15 136/2 138/16 144/11 145/18 151/3 156/3 166/23	138/13 146/6 147/11 147/23 147/24 148/4 148/8 148/8 148/12 148/12 151/16 153/5	theory [2] 94/10 121/19 therapeutic [1] 105/20

(65) supplier... - therapy

		-	-		
Т	67/1 67/20 71/7	44/9 45/1 48/2 48/4	70/17 73/22 74/1 74/3	122/19 124/25 125/18	trace [9] 7/18 8/12
-			76/3 104/25 135/3	125/19 125/21 125/24	19/7 20/7 85/5 85/11
therapy [13] 10	D/25 131/20 150/6 165/20	49/11 51/23 53/2	139/10 140/12 147/12	126/13 129/22 130/2	85/19 85/21 144/12
108/22 108/25 110	<sup>J/ 1</sup> 167/13	53/19 53/23 56/19	164/3	130/21 130/23 131/7	traced [5] 7/14 7/25
110/6 112/12 112/	14 thereafter [1] 127/10	58/23 58/23 59/4	thought [11] 18/18	131/18 132/24 133/7	19/4 29/15 130/18
112/18 113/21 114	therefore [8] 7/7 21/4		65/8 72/4 72/25 98/19	133/22 133/24 139/14	tracing [2] 6/10 19/15
114/19 114/20 13	2/11 22/3 6A/2A 75/2 78/2	59/22 59/23 65/3 69/1	126/22 156/15 157/6	142/18 142/19 142/20	tracking [1] 43/8
there [158] 1/12 2	113 90/6 163/18	70/23 72/4 72/4 72/9	159/3 159/9 160/2	142/25 144/6 144/8	trade [1] 50/5
3/6 3/17 5/4 6/2 6/	1/ these [53] 1/20 3/3	72/25 75/13 75/23	threat [5] 163/10	145/11 146/16 146/20	trading [1] 50/20
7/2 9/8 9/17 9/18 9	<sup>3/21</sup> 5/10 5/12 7/14 7/17	80/10 82/8 85/4 86/9	163/12 164/11 168/14	147/7 148/10 148/13	training [1] 128/18
10/1 10/15 11/22	7/18 7/22 7/25 8/10	88/9 88/21 89/25	168/15	157/23 158/1 159/9	trait [1] 128/22
12/19 18/11 18/12	20/9 20/12 20/17	90/14 92/21 92/24	threatened [1] 57/25	159/23 160/17 163/1	transferred [1] 56/13
18/25 19/10 19/15	23/21 25/9 31/23	94/21 94/23 94/24	threatening [1] 37/16	168/1 168/9	transfusion [17] 4/18
20/12 22/8 22/8 22	2/18 33/19 35/3 38/25 41/3		three [11] 7/2 37/13	timed [1] 14/2	4/25 5/13 5/14 6/1 8/8
24/22 25/15 26/11	1 4 7/1 7 5 3/6 54/9 60/11	98/2 99/2 99/12 100/7	37/15 49/2 60/17	timely [1] 52/16	12/5 12/6 18/16 20/5
27/8 27/23 28/5 28	62/20 74/13 75/14	101/2 103/11 104/25	79/13 81/17 93/15	times [3] 36/23 90/4	21/7 22/13 107/2
29/8 29/18 30/12	75/25 78/8 82/1 82/4	107/4 107/8 108/1	148/10 160/5 169/12	154/24	127/5 128/18 128/23
30/14 30/15 32/16	85/5 85/10 85/14	108/7 108/23 109/9	three years [2] 81/17	timescale [1] 80/1	130/14
33/20 34/11 36/21	85/22 86/7 86/10	109/22 110/8 110/13	93/15	timing [3] 14/1 14/17	transfusions [2] 9/23
38/5 38/7 38/18 39	9/19 98/23 105/7 105/15	110/20 110/24 112/6	three-quarters [3]	26/11	130/1
39/22 41/2 41/10	111/11 112/7 114/8	112/19 113/2 113/4	37/13 37/15 148/10	tiny [2] 44/15 85/13	transitional [1]
43/18 44/13 45/1 4	1 114/21 126/3 127/3	114/13 114/15 115/15	threshold [1] 7/8	tissue [3] 36/11 44/12	
46/20 47/10 48/10	1 1 35/1 1 38/25 142/21	116/4 119/4 119/6	thrombin [1] 17/18	88/22	transmission [8] 6/1
53/6 53/21 54/8 5	1 147/17 147/25 148/7	122/2 123/5 124/1	Thrombosis [2]	title [1] 70/5	18/15 18/17 21/25
58/17 59/2 59/6 60	116/11/	126/7 128/6 131/7	105/10 133/2	to [1143]	25/11 36/12 38/13
60/25 61/8 62/8 6	ITNEV 12981	131/19 132/23 133/22	thrombotic [1] 46/16	today [2] 1/9 169/3	86/20
70/10 71/5 72/11		3 134/24 135/3 136/2	through [42] 4/25	together [4] 71/21	transmit [1] 36/13
78/11 78/15 78/22	1 1775 1874 76721 8075	140/19 141/9 144/18	5/13 6/1 8/8 11/8	80/14 80/19 139/20	transmitted [6] 4/18
83/3 84/4 85/3 85/	1 96/5 98/18 17/18	147/12 150/17 150/24	18/17 20/5 20/11	token [1] 94/21	4/25 8/8 12/15 22/12
86/11 88/19 93/8	99/2   145/12 145/16 157/14	152/16 152/20 152/22	20/18 24/5 29/23 34/4	told [27] 6/13 7/4	161/2
99/4 99/6 99/22 99	INNEVILLI XY/15	153/9 153/23 157/23	37/17 38/13 39/19	18/13 18/22 23/18	transmitting [1]
105/4 107/25 109/	17 [tneyre[18] 15/11	158/15 159/8 159/14	42/17 53/5 53/9 58/20	31/13 31/19 34/13	124/19
110/23 111/5 112/	24 50/21 54/6 63/7 80/18		67/16 69/16 77/22	59/21 65/23 66/6 80/8	transparent [1]
113/14 114/12 110	5/7 89/15 98/25 100/4	168/4 169/6	92/8 93/18 100/20	95/11 99/10 100/15	152/24
117/1 117/5 117/1	1   113/21 114/10 122/22	0.1	118/25 120/6 124/16		treasurer [1] 49/24
118/10 118/23 12	1/3   125/23 126/5 131/17	third [10] 7/4 11/7	124/24 125/7 125/8	140/15 142/22 145/23	treat [1] 31/9
123/12 124/17 120	5/23 136/18 145/23 162/9	18/20 21/4 21/19	135/1 146/17 146/25	158/5 158/17 159/5	treated [24] 23/2
127/14 127/23 128	3/8 166/1	42/19 61/6 76/15	147/2 148/8 148/11	160/3 164/9 164/14	23/16 25/20 30/25
128/13 128/15 129	b/16 they've [7] 49/23 62/		148/12 151/22 153/11	tomorrow [1] 70/9	31/23 73/23 74/22
130/13 132/11 132	2/16 63/8 86/3 87/13 98/11		154/2 154/12	tone [1] 151/7	77/5 78/7 79/13 83/5
132/16 133/18 13	7/5 153/11	Thomas' [1] 48/5	throughout [4] 47/3	too [3] 38/25 126/2	83/12 84/5 91/4 98/15
139/7 139/16 139/	18 [mick [1] 14//1/	those [62] 1/9 1/12	62/2 119/14 121/6	162/5	111/5 112/11 113/20
139/23 140/15 14	1/17 <b>thing [23]</b> 5/9 14/20	2/10 3/22 7/13 8/13	Thursday [1] 1/1	took [16] 3/20 29/2	120/7 122/3 139/10 145/13 145/16 147/5
142/22 142/23 142	2/23 29/13 34/29 34/29	8/16 8/18 8/25 10/7	thus [4] 77/21 83/21	34/16 43/23 46/23	
146/14 146/19 146	40/5         64/2         64/19         67/5           67/20         67/15         79/16         94/5	15/22 19/11 20/19	96/17 108/20 tightened [1] 59/8	51/6 52/2 52/10 56/21 60/25 104/25 116/3	treatment [46] 9/18 9/21 18/12 31/11
148/21 148/25 150	<sup>1/23</sup> 104/16 105/14 120/10		time [88] 8/10 10/21	135/16 142/25 148/13	33/10 46/15 74/7
151/2 152/21 152/	<sup>20</sup>   120/18 120/21 125/14		14/16 15/1 15/12 16/6	168/20	76/21 76/25 78/2 79/2
153/9 153/10 155/	137/14 138/10 150/26		20/7 23/14 26/23	toolkit [1] 15/5	79/22 81/6 82/19 83/4
155/5 155/14 155/	15 156/5 161/6	81/11 83/21 84/5 84/7	28/20 30/21 34/16	Tooting [1] 20/5	83/15 83/18 84/1
158/7 158/15 158/	<sup>21</sup> things [17] 1/5 9/22	86/13 87/13 89/8	38/16 45/8 46/20	top [6] 13/10 21/11	84/16 99/6 100/18
158/25 159/2 159/	10/17 10/7 57/12 50/8		48/10 48/10 49/25	29/16 78/5 84/8	101/4 102/3 102/13
159/14 160/16 16	1/22 62/21 67/16 79/5 81/1		50/15 52/7 53/3 53/9	108/17	106/25 107/15 107/24
162/19 163/10 164	<sup>1/21</sup> 97/19 105/7 137/15	111/22 113/13 120/2	56/14 59/23 60/3	topic [9] 40/9 45/9	111/8 114/1 114/5
165/16 167/5 167/	10 151/20 154/11 155/16		60/25 61/12 62/3	86/16 112/24 115/5	117/12 119/1 119/3
there'd [1] 158/2	166/7	130/9 131/23 135/15	62/17 64/4 66/6 74/6	115/5 122/15 123/3	132/14 132/14 133/16
there's [28] 1/16	<sup>7/11</sup> think [128] 3/16 4/11	143/3 146/1 154/7	81/19 86/15 89/4	137/20	133/20 134/23 136/9
17/15 17/22 21/4	5/17 15/6 16/7 16/10	155/15 156/17 158/4	89/23 100/17 101/3	total [4] 29/21 43/2	139/14 144/23 154/4
24/18 27/10 30/8	30/9   16/14 20/24 24/5 25/3		101/7 101/22 105/5	113/10 165/8	155/17 158/25 165/2
32/25 35/21 36/6	25/4 28/1 30/8 32/14	166/10 167/18 168/5	108/4 108/9 111/14	towards [6] 30/18	165/3
36/10 40/9 40/24	34/16 34/21 35/16	169/9	112/4 114/12 119/8	54/13 69/20 105/22	Treloar [2] 47/23
47/17 49/18 54/16	35/18 37/21 38/3 40/1		121/2 121/4 122/9	138/2 140/5	133/6

(66) therapy... - Treloar

Ŧ		106/15	Unlike [1] 100/10	120/25 122/10 1/1/2	24/22 22/4 22/24 22/6
T	<u>U</u>	106/15 understand [30] 5/20	Unlike [1] 100/10 unlikely [2] 119/4	130/25 132/10 141/2 141/3 148/17 148/20	21/22 22/1 22/24 23/6 23/9 23/14 23/19
trend [1] 105/22	UK [16] 12/15 16/20	15/23 21/15 22/6	139/22	158/6 163/6 164/9	23/24 27/17 31/22
trial [16] 118/7 118/14		25/23 29/24 32/5 42/9	unopposed [1] 49/19	164/14 168/7 168/11	32/1 32/22 33/5 35/25
119/16 119/16 119/19		78/17 84/19 88/4	unquestionably [3]	168/13 168/21	38/14 40/9 40/11
119/23 119/23 121/7	56/24 57/18 61/18	88/14 94/4 95/17	107/19 107/20 116/18	US-sourced [1] 30/25	40/22 41/20 42/6
121/15 121/17 121/24	102/3 125/17 128/2	96/13 100/6 114/7	unrelated [1] 23/9	use [19] 3/3 3/22	42/16 168/14
121/25 122/2 122/5	UK-sourced [1] 31/1	130/7 130/20 130/22	unrestricted [6] 53/5	15/16 36/16 37/4	verbal [1] 88/12
trials [1] 122/23	UKHCDO [61] 2/20 3/14 8/6 10/15 14/13	131/2 132/24 145/19	53/23 54/4 54/5 54/7	39/12 52/18 54/8 55/6	verified [1] 33/20
tried [3] 40/2 152/23	14/24 15/25 16/9	146/18 151/10 151/15	54/24	63/4 69/21 88/18	very [86] 3/23 9/14
157/1	19/25 21/14 21/15	151/18 154/7 159/15	unsure [1] 9/21	95/18 104/19 105/8	10/4 17/12 18/16
triggered [4] 5/20	24/9 26/2 28/19 29/7	162/10	untested [3] 77/11	110/12 110/22 166/7	18/25 27/1 27/6 27/7
21/6 24/8 58/19	31/18 32/21 33/24	understandable [1]	78/24 82/7	167/15	31/1 44/21 50/4 50/18
trivial [1] 136/21	35/13 43/3 45/22	81/10	until [11] 3/18 5/25	used [19] 5/5 6/20 9/3	
trouble [4] 36/2 36/8	45/23 46/18 47/11	understandably [2]	69/13 86/18 98/13	31/8 36/15 36/22 37/1	52/15 52/24 56/25
50/14 137/13	49/1 49/25 50/3 51/3	157/17 157/20	100/11 105/23 108/24	37/6 38/15 55/5 57/11 109/2 109/3 120/3	59/1 60/25 62/15 65/2 65/14 68/3 75/25 76/2
true [4] 84/6 113/15	51/21 51/22 54/14	understanding [14] 37/23 43/21 43/23	112/16 130/15 169/18 unusable [1] 156/2	120/5 123/16 160/6	80/18 82/8 85/10
131/16 153/9	56/1 63/15 67/20 68/8	88/4 88/17 90/6 95/10	unusual [5] 9/14	166/15 166/24	85/11 86/13 92/21
truly [1] 163/14	70/9 74/6 74/10 76/12	96/23 100/6 100/16	18/10 92/13 139/7	useful [8] 53/12 55/7	94/13 94/15 95/19
Truro [1] 47/23	81/22 82/2 82/10	108/8 143/10 143/12	155/4	65/14 66/18 72/8	97/23 99/1 100/21
trust [1] 150/10	85/24 86/6 92/20 93/1	160/1	unusually [1] 111/7	103/9 128/21 164/25	100/24 101/4 101/4
trusts [2] 14/4 75/7	109/11 115/18 123/13	understands [1]	up [58] 2/3 5/25 6/9	uses [2] 60/6 88/19	105/6 106/16 106/20
truth [2] 153/1 153/2	123/17 123/21 132/21 133/24 133/25 134/3	106/17	18/19 19/12 20/21	using [16] 3/2 3/19	108/5 109/24 114/3
try [6] 72/16 80/8 120/18 134/21 142/7	133/24 133/25 134/3	understands it [1]	23/13 25/23 26/13	4/8 6/12 23/5 30/19	114/3 114/13 114/23
148/3	152/9 152/12 165/23	106/17	27/10 28/16 28/24	31/2 37/9 43/14 44/21	118/12 125/12 127/21
trying [11] 20/21 69/5		understatement [1]	29/8 30/8 30/9 35/17	55/19 78/12 94/5	131/5 133/17 134/4
72/22 86/7 89/21	57/5 69/22 71/12	150/20	44/17 44/21 44/25	94/11 133/20 165/6	134/15 135/8 136/14
126/23 130/7 130/22	ultimate [1] 8/12	undertake [1] 51/22	52/12 58/3 59/8 60/1	usual [2] 45/12	138/1 138/20 140/5
146/22 146/23 148/19	um [2] 128/24 135/18	undertaken [4] 17/23	65/25 66/13 66/15 68/15 77/13 77/17	146/25	141/22 150/22 151/16
TTI [1] 5/7	unable [2] 132/18	41/22 42/12 78/19 undertaking [3] 98/22	77/21 80/11 82/15	usually [3] 85/9 156/25 164/15	153/15 154/20 156/2 157/13 157/15 157/17
Tuesday [3] 169/6	148/12	118/24 119/10	82/25 84/6 86/1 86/10		157/17 157/20 160/24
169/15 169/18	unaware [2] 77/25	unethical [4] 119/5	86/13 90/14 91/3	V	163/17 164/1 164/1
turn [3] 75/20 77/1	112/15	119/10 121/17 121/22	96/20 98/16 104/22	vague [1] 138/21	164/25 166/6 167/18
158/11 turned [4] 30/24 32/9	uncertain [2] 12/14 24/11	unfolded [1] 9/23	106/20 106/21 108/24	valuable [1] 168/21	167/25 168/11 168/21
130/17 160/10	uncertainties [2] 7/5	unfortunate [2] 65/18	118/18 134/14 134/17	variable [1] 154/6	168/22 169/15
turning [1] 162/6	25/8	78/25	135/10 143/22 148/4	variables [1] 38/18	vice [2] 15/1 49/24
twice [2] 64/7 101/10	uncertainty [2]	Unfortunately [3] 26/8		variant [15] 8/11 9/24	vice-chairman [1]
two [40] 20/2 20/12	158/16 159/1	79/23 146/14	160/20 162/7 162/21	10/3 12/1 16/22 18/15	49/24
23/13 31/3 38/20	unconditional [1]	unheated [3] 155/17	168/1	22/11 24/12 24/24	video [1] 159/14
40/23 41/14 68/21	54/5	155/20 155/24	up-to-date [1] 25/23 update [1] 27/13	27/22 35/9 36/13 39/2 39/16 123/11	
68/25 69/25 79/13	unconscious [2]	unique [2] 64/5 66/24 uniquely [1] 100/10	updating [1] 36/6	variant CJD [4] 12/1	112/19 138/17 138/19 139/3 143/6 152/13
86/21 87/19 89/25	119/12 119/13	unit [7] 43/6 43/25	upgraded [1] 57/9	27/22 35/9 123/11	153/15
90/24 97/8 103/2	uncontroversial [1]	144/14 164/17 165/9	upload [1] 67/5	varied [4] 26/18	viewed [1] 103/17
105/15 105/21 110/17	150/24	165/13 165/25	upon [3] 6/14 111/24	127/22 127/25 164/18	views [1] 118/12
111/11 112/7 113/13	under [17] 1/7 1/18	United [3] 46/2 48/13	156/12	variety [1] 161/20	VIII [18] 23/4 23/11
113/19 114/9 114/16	12/22 14/1 35/25 42/20 51/6 56/16 60/7	102/16	upset [1] 153/12	various [17] 2/5 5/4	33/3 35/7 55/2 55/16
117/12 120/7 120/9	60/11 66/10 72/17	United Kingdom [3]	urgency [1] 14/23	6/16 11/25 51/18 53/5	107/14 108/21 108/25
135/11 140/3 142/24	83/3 102/19 102/24	46/2 48/13 102/16	urgent [2] 15/4 34/21	53/14 53/23 58/10	110/1 110/6 114/17
144/8 148/23 151/6	136/10 141/21	units [3] 29/21 55/18	us [50] 2/8 2/10 6/8	58/21 69/16 73/8 79/4	114/18 116/16 144/14
156/17 164/4	under-reporting [1]	165/6	8/4 16/8 19/3 21/3	134/18 140/1 141/11	163/19 164/17 165/6
two pages [1] 38/20	83/3	universal [2] 100/25	24/7 26/14 29/7 30/25	166/19 van [3] 26/20 128/4	vine [1] 52/11
two weeks [1] 90/24	undergoing [1] 127/3	153/15 universally [2] 2/14	31/12 40/19 53/13 53/16 55/3 63/23	vary [3] 26/20 128/4 134/19	viraemia [1] 158/12 viral [5] 3/24 89/7
type [3] 37/8 38/20	underline [1] 78/18	153/8	64/10 64/11 65/7	vCJD [44] 2/4 2/5 4/22	
71/19	underlined [1] 85/3	unknown [4] 78/6	66/19 67/9 67/17	5/17 5/21 6/13 6/21	virally [1] 124/19
type 3 [1] 37/8	underlying [2] 6/23	93/8 93/10 118/11	67/24 68/7 68/20 75/9	7/10 7/15 11/4 12/4	virology [1] 93/14
types [2] 9/1 120/1	7/5	unless [5] 83/11	75/20 78/18 79/11		virtually [2] 168/1
typically [1] 98/21	undermines [1] 3/11	84/10 89/18 100/4	79/23 81/13 83/18	16/2 17/21 19/22 20/4	168/23
	underneath [1]	145/22	83/22 87/14 109/8	20/24 21/7 21/18	virus [3] 158/7 159/20

(67) trend - virus

v	91/9 95/5 99/18	117/20 118/20 119/13	142/5 143/2 143/20	25/20 27/25 29/4	126/4 126/21 129/22
	115/18 116/22 118/13	119/23 121/5 122/8	146/10 146/18 147/15	29/14 33/1 34/1 34/9	130/4 130/16 130/17
virus [1] 160/22 virus-reduced [1]	119/20 120/4 120/8	125/8 126/17 126/22	148/8 148/13 148/14	37/9 44/7 46/16 47/10	131/11 138/12 139/8
160/22	120/10 120/15 121/20	128/16 129/18 130/8	150/8 150/20 153/2	47/24 48/11 48/18	141/5 141/6 148/11
viruses [8] 89/16 93/9	126/25 136/17 138/5	130/13 131/25 132/25	153/11 155/24 158/5	50/7 52/19 53/7 53/8	149/16 149/17 153/7
96/7 96/9 99/25 125/5	138/15 139/7 141/7	134/3 135/18 136/12	160/20 164/24 165/23	53/17 53/19 54/10	153/10 157/16
125/20 160/12	144/11 150/1 151/20	136/12 136/14 137/17	166/12 167/7 168/12	55/7 55/11 59/11 60/6	who'd [3] 98/15 143/9
volumes [1] 147/17	151/25 157/20 158/9	139/2 142/9 142/18	168/16	60/16 60/23 64/9	158/9
voluminous [1]	161/18 164/7 164/8	142/18 143/5 143/7	what's [4] 12/2 142/8	64/14 64/22 65/5	whole [26] 5/8 14/20
147/19	164/24 166/5 167/1	143/7 144/13 144/19	142/15 162/6	65/24 66/11 66/21	22/13 40/5 52/20
volunteered [1] 94/16	168/3 168/5	145/11 146/20 150/3	whatever [7] 25/8	66/23 66/23 67/4	63/20 65/23 67/5
von [4] 3/25 37/8 57/3	ways [4] 64/22 65/14	152/4 152/17 152/19	75/17 84/17 94/2 99/6	68/19 68/22 68/23	67/21 68/2 68/3 79/16
94/2	134/10 100/23	153/5 155/22 155/24 157/1 157/12 159/5	116/12 161/11	70/10 70/11 72/1 72/20 72/23 75/10	80/3 83/25 85/8 85/12 105/12 113/22 120/2
von Willebrand's [4]	we [461] we'd [4] 21/5 65/18	160/24 160/24 161/18	whatsoever [2] 150/10 151/24	75/16 75/16 78/16	120/5 138/10 139/24
3/25 37/8 57/3 94/2	116/1 163/24	162/12 162/16 164/3	when [66] 1/22 16/15	78/25 81/16 81/21	155/3 155/4 161/4
vote [1] 49/17	we'll [13] 11/24 24/25	166/14 167/13 167/18	18/3 23/8 26/25 29/1	81/22 86/25 88/20	161/5
vulnerable [2] 135/8	25/16 35/22 45/11	167/24 168/25	30/15 38/3 38/12 39/4	90/3 92/3 92/12 94/1	whom [8] 13/19 65/15
163/22	82/10 87/17 102/23	well established [1]	40/3 45/4 46/25 50/8	96/6 99/18 100/10	79/24 79/25 84/1 85/9
w	106/10 132/1 152/4	110/13	52/2 52/10 56/21 61/2	102/6 104/15 104/18	86/9 143/5
	152/4 168/8	went [10] 4/10 23/5	62/9 63/2 67/11 85/25	105/1 105/9 105/17	whose [5] 41/2 75/25
Wales [2] 20/5 53/20	we're [22] 1/7 6/5 6/13		93/10 96/20 97/9	109/20 109/21 111/2	83/15 83/18 84/2
walls [1] 137/4 want [26] 2/3 18/8	7/4 10/25 23/18 44/20	130/18 148/7 154/2	101/23 104/3 104/7	113/3 114/2 115/19	why [10] 1/22 12/9
41/14 56/10 57/24	70/24 70/25 71/1	160/17	105/24 106/25 107/6	117/10 117/17 119/14	70/25 107/4 119/14
63/10 65/12 76/7 87/3	87/16 89/16 90/20	were [246]	107/25 110/5 110/14	123/5 123/19 124/7	125/5 148/19 149/22
89/7 90/14 93/9 93/10	99/24 107/23 109/18	weren't [9] 20/13	112/10 113/19 114/12	125/4 126/20 127/16	151/10 152/16
93/20 94/7 118/1	113/8 115/4 164/23	59/17 81/18 108/4	116/22 120/24 122/9	128/9 128/14 130/4	wide [3] 38/8 153/17
121/7 121/23 148/1	165/9 167/25 169/3	116/19 136/1 146/24	122/24 123/5 124/13	130/21 130/25 130/25	162/1
149/17 151/11 153/1	we've [9] 10/24 14/10	147/15 153/1	125/1 128/18 131/16	133/2 133/8 133/14	widely [3] 107/8 133/5
161/6 161/19 162/3	42/22 47/18 56/6	what [131] 1/20 5/2	133/15 140/13 147/20	133/25 134/22 136/17	133/13
164/6	72/10 96/20 161/10 165/1	6/25 8/5 12/1 12/3 12/12 12/22 13/8	148/19 150/8 152/25 153/4 155/22 156/6	139/4 140/2 141/20 141/22 142/24 144/11	widened [1] 47/5 will [66] 3/8 8/3 13/9
wanted [27] 16/8 18/7					
	weaknesses [1]	18/18/19/5 20/15 24/8	15/14 15/15 16/17	145/15 146/5 146/21	13/12 14/2 25/20
34/18 40/10 48/22	weaknesses [1]	18/18 19/5 20/15 24/8 27/18 27/20 28/18	157/4 157/15 162/7 162/22 162/23 162/23	145/15 146/5 146/21 151/6 151/8 151/8	13/12 14/2 25/20 33/18 33/19 33/25
53/10 66/15 67/22	119/17	27/18 27/20 28/18	162/22 162/23 162/23	151/6 151/8 151/8	33/18 33/19 33/25
53/10 66/15 67/22 71/8 72/14 73/10	119/17 wear [1] 1/19	27/18 27/20 28/18 28/20 30/1 30/4 30/4			
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22	119/17	27/18 27/20 28/18 28/20 30/1 30/4 30/4	162/22 162/23 162/23 162/24 163/25 164/16	151/6 151/8 151/8 152/21 156/12 157/21	33/18 33/19 33/25 34/1 41/4 41/8 41/25
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5	119/17 wear [1] 1/19 website [7] 36/7 63/12	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whils [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whils [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19 was [426]	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18 28/23 32/11 34/8	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1 86/7 87/15 89/5 89/8	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12 9/19 12/14 16/4 16/8	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whils [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16 20/3 23/5 28/12 28/17	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12 131/22 131/22 132/2
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19 was [426] wasn't [17] 4/2 4/6	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whils [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19 was [426] wasn't [17] 4/2 4/6 24/21 27/9 36/24	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18 28/23 32/11 34/8 35/17 36/10 38/7 44/9	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1 86/7 87/15 89/5 89/8 89/11 89/21 89/24	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12 9/19 12/14 16/4 16/8 16/9 16/11 16/13	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16 20/3 23/5 28/12 28/17 30/23 32/21 33/3 33/8	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12 131/22 131/22 132/2 132/4 134/19 146/10
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19 was [426] wasn't [17] 4/2 4/6 24/21 27/9 36/24 39/17 44/2 52/14	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18 28/23 32/11 34/8 35/17 36/10 38/7 44/9 47/15 48/8 50/4 50/18	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1 86/7 87/15 89/5 89/8 89/11 89/21 89/24 90/16 91/4 91/17	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12 9/19 12/14 16/4 16/8 16/9 16/11 16/13 16/17 17/4 17/20	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16 20/3 23/5 28/12 28/17 30/23 32/21 33/3 33/8 34/2 34/13 35/7 37/8	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12 131/22 131/22 132/2 132/4 134/19 146/10 153/17 161/22 168/25
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19 was [426] wasn't [17] 4/2 4/6 24/21 27/9 36/24 39/17 44/2 52/14 52/15 68/2 80/19	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18 28/23 32/11 34/8 35/17 36/10 38/7 44/9 47/15 48/8 50/4 50/18 52/25 54/24 56/14	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1 86/7 87/15 89/5 89/8 89/11 89/21 89/24 90/16 91/4 91/17 91/21 92/2 93/6 93/7	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12 9/19 12/14 16/4 16/8 16/9 16/11 16/13 16/17 17/4 17/20 19/13 36/18 41/6 42/4	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16 20/3 23/5 28/12 28/17 30/23 32/21 33/3 33/8 34/2 34/13 35/7 37/8 39/10 40/6 52/7 56/17	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12 131/22 131/22 132/2 132/4 134/19 146/10 153/17 161/22 168/25 169/10
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19 was [426] wasn't [17] 4/2 4/6 24/21 27/9 36/24 39/17 44/2 52/14 52/15 68/2 80/19 107/25 114/16 115/23	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18 28/23 32/11 34/8 35/17 36/10 38/7 44/9 47/15 48/8 50/4 50/18 52/25 54/24 56/14 59/17 69/25 75/12	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1 86/7 87/15 89/5 89/8 89/11 89/21 89/24 90/16 91/4 91/17 91/21 92/2 93/6 93/7 95/6 96/10 96/21	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12 9/19 12/14 16/4 16/8 16/9 16/11 16/13 16/17 17/4 17/20 19/13 36/18 41/6 42/4 44/4 55/17 55/18 55/25 64/1 65/8 69/23 76/20 98/18 102/20	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16 20/3 23/5 28/12 28/17 30/23 32/21 33/3 33/8 34/2 34/13 35/7 37/8 39/10 40/6 52/7 56/17 57/10 57/14 59/21	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12 131/22 131/22 132/2 132/4 134/19 146/10 153/17 161/22 168/25 169/10 Willebrand's [4] 3/25 37/8 57/3 94/2 William [1] 141/13
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19 was [426] wasn't [17] 4/2 4/6 24/21 27/9 36/24 39/17 44/2 52/14 52/15 68/2 80/19 107/25 114/16 115/23 122/7 132/23 133/13	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18 28/23 32/11 34/8 35/17 36/10 38/7 44/9 47/15 48/8 50/4 50/18 52/25 54/24 56/14 59/17 69/25 75/12 78/20 80/18 82/6 85/4 87/15 88/21 89/4 89/16 91/8 92/6 93/14	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1 86/7 87/15 89/5 89/8 89/11 89/21 89/24 90/16 91/4 91/17 91/21 92/2 93/6 93/7 95/6 96/10 96/21 98/20 99/9 101/19 104/3 105/22 109/9 110/8 113/13 114/9	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12 9/19 12/14 16/4 16/8 16/9 16/11 16/13 16/17 17/4 17/20 19/13 36/18 41/6 42/4 44/4 55/17 55/18 55/25 64/1 65/8 69/23 76/20 98/18 102/20 116/24 123/12 150/23	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16 20/3 23/5 28/12 28/17 30/23 32/21 33/3 33/8 34/2 34/13 35/7 37/8 39/10 40/6 52/7 56/17 57/10 57/14 59/21 63/23 65/12 65/13 66/17 66/17 68/14 68/15 69/7 75/19	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12 131/22 131/22 132/2 132/4 134/19 146/10 153/17 161/22 168/25 169/10 Willebrand's [4] 3/25 37/8 57/3 94/2 William [1] 141/13 William Connon [1]
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19 was [426] wasn't [17] 4/2 4/6 24/21 27/9 36/24 39/17 44/2 52/14 52/15 68/2 80/19 107/25 114/16 115/23 122/7 132/23 133/13 watching [5] 1/9 1/12	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18 28/23 32/11 34/8 35/17 36/10 38/7 44/9 47/15 48/8 50/4 50/18 52/25 54/24 56/14 59/17 69/25 75/12 78/20 80/18 82/6 85/4 87/15 88/21 89/4 89/16 91/8 92/6 93/14 95/16 95/17 96/19	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1 86/7 87/15 89/5 89/8 89/11 89/21 89/24 90/16 91/4 91/17 91/21 92/2 93/6 93/7 95/6 96/10 96/21 98/20 99/9 101/19 104/3 105/22 109/9 110/8 113/13 114/9 114/11 118/16 119/2	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12 9/19 12/14 16/4 16/8 16/9 16/11 16/13 16/17 17/4 17/20 19/13 36/18 41/6 42/4 44/4 55/17 55/18 55/25 64/1 65/8 69/23 76/20 98/18 102/20 116/24 123/12 150/23 164/10 168/8	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16 20/3 23/5 28/12 28/17 30/23 32/21 33/3 33/8 34/2 34/13 35/7 37/8 39/10 40/6 52/7 56/17 57/10 57/14 59/21 63/23 65/12 65/13 66/17 66/17 68/14 68/15 69/7 75/19 76/23 78/24 79/20	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12 131/22 131/22 132/2 132/4 134/19 146/10 153/17 161/22 168/25 169/10 Willebrand's [4] 3/25 37/8 57/3 94/2 William [1] 141/13 William Connon [1] 141/13
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19 was [426] wasn't [17] 4/2 4/6 24/21 27/9 36/24 39/17 44/2 52/14 52/15 68/2 80/19 107/25 114/16 115/23 122/7 132/23 133/13 watching [5] 1/9 1/12 1/17 106/2 131/24	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18 28/23 32/11 34/8 35/17 36/10 38/7 44/9 47/15 48/8 50/4 50/18 52/25 54/24 56/14 59/17 69/25 75/12 78/20 80/18 82/6 85/4 87/15 88/21 89/4 89/16 91/8 92/6 93/14 95/16 95/17 96/19 96/21 98/23 99/24	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1 86/7 87/15 89/5 89/8 89/11 89/21 89/24 90/16 91/4 91/17 91/21 92/2 93/6 93/7 95/6 96/10 96/21 98/20 99/9 101/19 104/3 105/22 109/9 110/8 113/13 114/9 114/11 118/16 119/2 119/9 120/4 120/18	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12 9/19 12/14 16/4 16/8 16/9 16/11 16/13 16/17 17/4 17/20 19/13 36/18 41/6 42/4 44/4 55/17 55/18 55/25 64/1 65/8 69/23 76/20 98/18 102/20 116/24 123/12 150/23 164/10 168/8 which [141] 1/8 1/11	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16 20/3 23/5 28/12 28/17 30/23 32/21 33/3 33/8 34/2 34/13 35/7 37/8 39/10 40/6 52/7 56/17 57/10 57/14 59/21 63/23 65/12 65/13 66/17 66/17 68/14 68/15 69/7 75/19 76/23 78/24 79/20 80/11 80/11 80/21	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12 131/22 131/22 132/2 132/4 134/19 146/10 153/17 161/22 168/25 169/10 Willebrand's [4] 3/25 37/8 57/3 94/2 William [1] 141/13 William Connon [1] 141/13 willing [1] 156/16
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19 was [426] wasn't [17] 4/2 4/6 24/21 27/9 36/24 39/17 44/2 52/14 52/15 68/2 80/19 107/25 114/16 115/23 122/7 132/23 133/13 watching [5] 1/9 1/12	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18 28/23 32/11 34/8 35/17 36/10 38/7 44/9 47/15 48/8 50/4 50/18 52/25 54/24 56/14 59/17 69/25 75/12 78/20 80/18 82/6 85/4 87/15 88/21 89/4 89/16 91/8 92/6 93/14 95/16 95/17 96/19 96/21 98/23 99/24 100/2 100/16 104/4	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1 86/7 87/15 89/5 89/8 89/11 89/21 89/24 90/16 91/4 91/17 91/21 92/2 93/6 93/7 95/6 96/10 96/21 98/20 99/9 101/19 104/3 105/22 109/9 110/8 113/13 114/9 114/11 118/16 119/2 119/9 120/4 120/18 121/2 122/6 127/9	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12 9/19 12/14 16/4 16/8 16/9 16/11 16/13 16/17 17/4 17/20 19/13 36/18 41/6 42/4 44/4 55/17 55/18 55/25 64/1 65/8 69/23 76/20 98/18 102/20 116/24 123/12 150/23 164/10 168/8 which [141] 1/8 1/11 1/18 1/22 2/21 3/4 6/8	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16 20/3 23/5 28/12 28/17 30/23 32/21 33/3 33/8 34/2 34/13 35/7 37/8 39/10 40/6 52/7 56/17 57/10 57/14 59/21 63/23 65/12 65/13 66/17 66/17 68/14 68/15 69/7 75/19 76/23 78/24 79/20 80/11 80/11 80/21 83/19 83/21 84/3	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12 131/22 131/22 132/2 132/4 134/19 146/10 153/17 161/22 168/25 169/10 Willebrand's [4] 3/25 37/8 57/3 94/2 William [1] 141/13 William Connon [1] 141/13 willing [1] 156/16 willingness [1]
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19 was [426] wasn't [17] 4/2 4/6 24/21 27/9 36/24 39/17 44/2 52/14 52/15 68/2 80/19 107/25 114/16 115/23 122/7 132/23 133/13 watching [5] 1/9 1/12 1/17 106/2 131/24 way [45] 8/7 9/4 25/20	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18 28/23 32/11 34/8 35/17 36/10 38/7 44/9 47/15 48/8 50/4 50/18 52/25 54/24 56/14 59/17 69/25 75/12 78/20 80/18 82/6 85/4 87/15 88/21 89/4 89/16 91/8 92/6 93/14 95/16 95/17 96/19 96/21 98/23 99/24 100/2 100/16 104/4 104/10 110/8 110/13	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1 86/7 87/15 89/5 89/8 89/11 89/21 89/24 90/16 91/4 91/17 91/21 92/2 93/6 93/7 95/6 96/10 96/21 98/20 99/9 101/19 104/3 105/22 109/9 110/8 113/13 114/9 114/11 118/16 119/2 119/9 120/4 120/18 121/2 122/6 127/9 130/10 134/9 134/20	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12 9/19 12/14 16/4 16/8 16/9 16/11 16/13 16/17 17/4 17/20 19/13 36/18 41/6 42/4 44/4 55/17 55/18 55/25 64/1 65/8 69/23 76/20 98/18 102/20 116/24 123/12 150/23 164/10 168/8 which [141] 1/8 1/11 1/18 1/22 2/21 3/4 6/8 6/15 9/9 9/17 10/14	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16 20/3 23/5 28/12 28/17 30/23 32/21 33/3 33/8 34/2 34/13 35/7 37/8 39/10 40/6 52/7 56/17 57/10 57/14 59/21 63/23 65/12 65/13 66/17 66/17 68/14 68/15 69/7 75/19 76/23 78/24 79/20 80/11 80/11 80/21 83/19 83/21 84/3 86/12 87/8 90/2 90/9	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12 131/22 131/22 132/2 132/4 134/19 146/10 153/17 161/22 168/25 169/10 Willebrand's [4] 3/25 37/8 57/3 94/2 William [1] 141/13 William Connon [1] 141/13 willing [1] 156/16 willingness [1] 168/10
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19 was [426] wasn't [17] 4/2 4/6 24/21 27/9 36/24 39/17 44/2 52/14 52/15 68/2 80/19 107/25 114/16 115/23 122/7 132/23 133/13 watching [5] 1/9 1/12 1/17 106/2 131/24 way [45] 8/7 9/4 25/20 38/13 38/21 47/10	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18 28/23 32/11 34/8 35/17 36/10 38/7 44/9 47/15 48/8 50/4 50/18 52/25 54/24 56/14 59/17 69/25 75/12 78/20 80/18 82/6 85/4 87/15 88/21 89/4 89/16 91/8 92/6 93/14 95/16 95/17 96/19 96/21 98/23 99/24 100/2 100/16 104/4 104/10 110/8 110/13 111/2 111/18 111/21	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1 86/7 87/15 89/5 89/8 89/11 89/21 89/24 90/16 91/4 91/17 91/21 92/2 93/6 93/7 95/6 96/10 96/21 98/20 99/9 101/19 104/3 105/22 109/9 110/8 113/13 114/9 114/11 118/16 119/2 119/9 120/4 120/18 121/2 122/6 127/9 130/10 134/9 134/20 135/20 136/8 138/24	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 4/21 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12 9/19 12/14 16/4 16/8 16/9 16/11 16/13 16/17 17/4 17/20 19/13 36/18 41/6 42/4 44/4 55/17 55/18 55/25 64/1 65/8 69/23 76/20 98/18 102/20 116/24 123/12 150/23 164/10 168/8 which [141] 1/8 1/11 1/18 1/22 2/21 3/4 6/8 6/15 9/9 9/17 10/14 10/18 13/6 14/19 15/6	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16 20/3 23/5 28/12 28/17 30/23 32/21 33/3 33/8 34/2 34/13 35/7 37/8 39/10 40/6 52/7 56/17 57/10 57/14 59/21 63/23 65/12 65/13 66/17 66/17 68/14 68/15 69/7 75/19 76/23 78/24 79/20 80/11 80/11 80/21 83/19 83/21 84/3 86/12 87/8 90/2 90/9 91/3 91/4 98/16 103/3	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12 131/22 131/22 132/2 132/4 134/19 146/10 153/17 161/22 168/25 169/10 Willebrand's [4] 3/25 37/8 57/3 94/2 William [1] 141/13 William Connon [1] 141/13 willing [1] 156/16 willingness [1] 168/10 Willslow [1] 60/17
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19 was [426] wasn't [17] 4/2 4/6 24/21 27/9 36/24 39/17 44/2 52/14 52/15 68/2 80/19 107/25 114/16 115/23 122/7 132/23 133/13 watching [5] 1/9 1/12 1/17 106/2 131/24 way [45] 8/7 9/4 25/20 38/13 38/21 47/10 51/3 56/15 62/9 69/11	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18 28/23 32/11 34/8 35/17 36/10 38/7 44/9 47/15 48/8 50/4 50/18 52/25 54/24 56/14 59/17 69/25 75/12 78/20 80/18 82/6 85/4 87/15 88/21 89/4 89/16 91/8 92/6 93/14 95/16 95/17 96/19 96/21 98/23 99/24 100/2 100/16 104/4 104/10 110/8 110/13	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1 86/7 87/15 89/5 89/8 89/11 89/21 89/24 90/16 91/4 91/17 91/21 92/2 93/6 93/7 95/6 96/10 96/21 98/20 99/9 101/19 104/3 105/22 109/9 110/8 113/13 114/9 114/11 118/16 119/2 119/9 120/4 120/18 121/2 122/6 127/9 130/10 134/9 134/20	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 42/1 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12 9/19 12/14 16/4 16/8 16/9 16/11 16/13 16/17 17/4 17/20 19/13 36/18 41/6 42/4 44/4 55/17 55/18 55/25 64/1 65/8 69/23 76/20 98/18 102/20 116/24 123/12 150/23 164/10 168/8 which [141] 1/8 1/11 1/18 1/22 2/21 3/4 6/8 6/15 9/9 9/17 10/14	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16 20/3 23/5 28/12 28/17 30/23 32/21 33/3 33/8 34/2 34/13 35/7 37/8 39/10 40/6 52/7 56/17 57/10 57/14 59/21 63/23 65/12 65/13 66/17 66/17 68/14 68/15 69/7 75/19 76/23 78/24 79/20 80/11 80/11 80/21 83/19 83/21 84/3 86/12 87/8 90/2 90/9	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12 131/22 131/22 132/2 132/4 134/19 146/10 153/17 161/22 168/25 169/10 Willebrand's [4] 3/25 37/8 57/3 94/2 William [1] 141/13 William Connon [1] 141/13 willing [1] 156/16 willingness [1] 168/10
53/10 66/15 67/22 71/8 72/14 73/10 75/17 79/2 94/22 95/19 96/10 100/5 101/17 101/25 102/20 125/6 139/2 145/15 147/10 148/14 156/5 165/2 wanting [1] 3/8 wants [2] 138/11 150/10 war [2] 149/16 149/24 warehouse [2] 165/16 165/17 warfare [1] 150/19 was [426] wasn't [17] 4/2 4/6 24/21 27/9 36/24 39/17 44/2 52/14 52/15 68/2 80/19 107/25 114/16 115/23 122/7 132/23 133/13 watching [5] 1/9 1/12 1/17 106/2 131/24 way [45] 8/7 9/4 25/20 38/13 38/21 47/10 51/3 56/15 62/9 69/11	119/17 wear [1] 1/19 website [7] 36/7 63/12 63/13 63/14 63/15 63/17 63/18 week [6] 14/20 70/19 169/3 169/4 169/5 169/13 weeks [1] 90/24 weird [1] 70/5 welcome [2] 55/22 153/16 welcomed [1] 153/8 well [105] 3/16 5/4 8/7 16/21 24/10 26/18 28/23 32/11 34/8 35/17 36/10 38/7 44/9 47/15 48/8 50/4 50/18 52/25 54/24 56/14 59/17 69/25 75/12 78/20 80/18 82/6 85/4 87/15 88/21 89/4 89/16 91/8 92/6 93/14 95/16 95/17 96/19 96/21 98/23 99/24 100/2 100/16 104/4 104/10 110/8 110/13 111/2 111/18 111/21	27/18 27/20 28/18 28/20 30/1 30/4 30/4 30/14 30/15 32/16 33/16 34/6 36/8 39/5 44/22 45/3 46/4 47/21 49/4 49/12 49/20 49/21 50/16 52/25 54/4 54/14 54/22 56/11 57/21 58/16 58/21 60/2 60/2 61/8 62/8 65/22 69/6 69/10 69/12 69/22 70/24 70/25 71/17 71/19 72/6 75/9 75/19 76/21 77/3 79/12 84/16 85/1 86/7 87/15 89/5 89/8 89/11 89/21 89/24 90/16 91/4 91/17 91/21 92/2 93/6 93/7 95/6 96/10 96/21 98/20 99/9 101/19 104/3 105/22 109/9 110/8 113/13 114/9 114/11 118/16 119/2 119/9 120/4 120/18 121/2 122/6 127/9 130/10 134/9 134/20 135/20 136/8 138/24	162/22 162/23 162/23 162/24 163/25 164/16 165/4 166/11 where [22] 39/20 39/22 4/21 43/12 60/18 66/15 72/2 90/2 90/10 90/14 91/19 92/1 95/6 115/8 116/7 117/5 117/11 134/17 139/16 139/24 159/11 161/4 whereby [3] 61/21 81/4 129/12 Wherever [1] 43/4 whether [30] 3/12 9/19 12/14 16/4 16/8 16/9 16/11 16/13 16/17 17/4 17/20 19/13 36/18 41/6 42/4 44/4 55/17 55/18 55/25 64/1 65/8 69/23 76/20 98/18 102/20 116/24 123/12 150/23 164/10 168/8 which [141] 1/8 1/11 1/18 1/22 2/21 3/4 6/8 6/15 9/9 9/17 10/14 10/18 13/6 14/19 15/6	151/6 151/8 151/8 152/21 156/12 157/21 160/21 160/25 161/20 163/5 165/1 165/17 165/18 165/24 166/25 167/1 168/14 169/6 while [1] 148/5 whilst [7] 81/10 97/2 97/24 109/18 111/6 137/3 139/18 who [82] 1/9 1/12 1/13 4/21 6/12 6/16 7/13 8/13 8/16 8/18 12/4 12/24 12/25 16/24 18/19 19/11 19/16 20/3 23/5 28/12 28/17 30/23 32/21 33/3 33/8 34/2 34/13 35/7 37/8 39/10 40/6 52/7 56/17 57/10 57/14 59/21 63/23 65/12 65/13 66/17 66/17 68/14 68/15 69/7 75/19 76/23 78/24 79/20 80/11 80/11 80/21 83/19 83/21 84/3 86/12 87/8 90/2 90/9 91/3 91/4 98/16 103/3	33/18 33/19 33/25 34/1 41/4 41/8 41/25 42/1 42/2 45/13 55/13 61/3 61/4 62/1 67/2 70/12 71/1 71/4 71/5 74/23 74/25 75/6 77/20 77/21 81/21 84/15 85/23 90/14 90/15 90/16 90/17 90/19 90/21 91/19 91/20 92/1 92/2 93/18 94/1 95/11 99/12 109/8 112/13 114/3 123/19 125/9 125/21 128/4 131/10 131/12 131/22 131/22 132/2 132/4 134/19 146/10 153/17 161/22 168/25 169/10 Willebrand's [4] 3/25 37/8 57/3 94/2 William [1] 141/13 William Connon [1] 141/13 willing [1] 156/16 willingness [1] 168/10 Willslow [1] 60/17

(68) virus... - window

14/	uitman [4] 00/10	wrate [0] 0/17 4/16	wet [3] 105/0 100/10		
W	witness [4] 99/19	wrote [8] 2/17 4/16 25/11 66/20 66/24	yet [2] 125/2 168/13	Ζ	
window [2] 125/3	100/8 151/5 151/7 witnesses [4] 59/21	73/12 132/25 148/25	yielded [1] 103/14 you [477]	zero [1] 39/6	
125/11	153/15 169/4 169/12		you'd [3] 89/20 94/22	zoom [1] 21/11	
wish [9] 15/17 28/8	women [1] 101/15	X	99/9		
42/4 63/19 70/21 72/3	won't [9] 1/10 13/9	XI [2] 31/6 31/7	you'll [10] 63/2 66/23		
87/13 134/6 167/22	25/16 89/14 94/3 94/4		90/23 103/1 125/20		
wished [2] 81/11	145/20 153/14 156/22	<u>Y</u>	126/18 127/14 135/19		
112/25	wonder [1] 154/16	yeah [4] 48/8 48/8	144/13 164/3		
with [227]	wondering [1] 38/16	54/3 118/16	you're [29] 4/22 13/20		
with HIV [1] 158/14	woodwork [2] 82/9	year [12] 49/2 53/4	14/12 29/17 37/25		
with it [4] 36/20 40/19	98/24	56/11 66/11 68/7 70/2	44/22 69/7 69/8 72/2		
92/2 151/5	word [2] 54/8 95/18	71/3 72/20 75/9 97/7	82/6 89/10 90/3 90/10		
withdrawal [1] 124/6 withdrawn [1] 60/12	wording [1] 151/7	154/21 165/6	90/14 100/9 104/22		
withdrew [1] 3/16	words [3] 53/22 96/7	years [50] 9/25 10/6	111/19 114/11 117/6		
withering [1] 52/11	141/8	21/22 23/9 24/24 25/6	123/2 126/14 127/15		
within [5] 7/13 16/5	work [13] 30/4 33/25	30/17 39/21 46/19	127/18 129/3 133/8		
45/23 46/16 134/20	34/17 40/13 51/22	49/3 54/16 57/1 57/3	142/14 143/19 160/21		
without [10] 29/23	51/25 69/5 78/15 79/6	57/7 58/10 58/16	160/25		
34/4 54/9 94/6 95/13	144/25 150/13 150/15	63/16 66/1 72/18	you've [32] 24/6		
95/13 99/25 121/20	160/22	81/17 82/20 83/6	30/10 40/17 45/23		
126/25 158/12	worked [4] 30/16	93/15 103/4 103/4 103/6 103/6 103/15	50/1 50/2 50/15 52/25		
WITN3289047 [1]	56/20 156/13 160/24	106/19 106/24 107/1	54/16 59/20 69/19		
102/2	worker [1] 60/19 working [16] 4/19 5/1	108/20 109/3 110/3	86/24 88/6 89/25 94/25 97/14 98/24		
WITN3289054 [1]	5/8 8/9 17/1 33/25	110/17 111/15 111/24	99/18 100/7 104/14		
91/11	58/3 59/10 59/11	121/5 123/12 124/13	106/1 109/1 109/9		
WITN3289082 [1] 46/1	59/14 92/20 112/14	132/13 135/3 141/14	114/9 143/2 143/4		
WITN3289110 [1] 6/4	112/16 123/18 132/17	143/18 143/25 147/18	145/5 149/1 151/4		
WITN3289111 [1]	132/24	151/1 155/1 155/2	151/6 154/25 162/21		
14/25	works [1] 161/8	160/15	your [92] 1/13 1/15		
WITN3289113 [1]	world [2] 118/12	yes [80] 11/11 11/20	2/6 2/8 4/19 6/8 16/3		
10/24	162/17	13/17 13/21 15/8	17/7 19/3 19/6 20/9		
WITN3289114 [1]	worried [2] 98/25	17/20 20/21 22/11	21/13 24/6 26/2 26/15		
WITN3289115 [1]	138/10	26/14 30/7 35/10	28/18 28/19 30/11		
11/21	worry [4] 3/9 8/21	35/24 38/7 39/16	32/6 34/7 40/11 42/4		
WITN3289116 [1] 17/9	27/21 36/12	39/17 45/11 45/19	43/21 44/4 44/5 45/22		
WITN3289118 [1]	worrying[1] 136/19	46/22 52/2 52/2 53/25	49/25 53/22 54/15		
13/22	worse [1] 153/24	54/3 54/18 54/21	61/4 61/4 69/8 74/16		
WITN3289120 [1]	worth [4] 37/13 50/14	69/18 84/22 86/14	76/7 87/5 88/4 88/7		
27/11	113/13 114/9	86/18 87/25 89/25 90/12 95/15 95/17	88/14 88/16 88/17 90/22 92/12 93/13		
WITN3289130 [1]	would [194] wouldn't [10] 17/3	99/13 102/11 102/17	95/23 96/4 96/11		
22/19	85/14 88/24 88/25	104/2 104/24 106/14	96/13 96/13 96/14		
WITN3289132 [1]	89/18 113/18 116/19	106/23 107/8 107/9	99/14 99/14 99/19		
25/17	118/1/ 130/8 16//10	107/17 108/13 109/5	99/19 100/6 100/8		
WITN3289133 [1] 26/3	write [5] 8/22 16/9	109/6 109/10 110/11	100/12 101/17 101/23		
WITN3289134 [1]	28/22 86/2 122/14	110/18 111/10 111/21	102/7 102/9 104/1		
31/16	writing [5] 31/25 41/5	111/21 112/1 114/15	113/1 115/7 115/10		
WITN3289136 [1] 32/18	73/17 92/15 138/24	117/3 122/4 122/19	117/4 121/2 122/25		
WITN3289137 [1]	written [23] 8/15	122/19 126/10 131/9	123/1 123/4 129/19		
33/13	46/21 47/11 49/9	132/1 132/3 132/9	129/20 129/25 133/21		
WITN3289148 [1]	56/20 57/10 61/14	141/19 143/14 145/1	133/24 136/3 136/10		
40/15	61/16 65/9 65/22	145/25 149/5 151/9	142/15 142/16 149/2		
WITN3289151 [1]	66/12 68/17 69/20	154/10 154/15 155/2	150/2 151/5 151/7		
42/14	70/8 70/12 88/12	156/11 156/24 159/21 161/6 161/13 161/15	152/9 153/15 154/14		
WITN3289157 [1]	96/14 99/22 100/2	169/7 169/8	159/23 161/9 161/9		
76/10	100/3 105/9 115/22 135/20	yesterday [10] 2/6	167/9 168/1 168/10 168/17		
WITN3289162 [1]	wrong [5] 35/15 35/16		yourself [2] 122/5		
82/14	51/19 5//8 151/21	102/7 104/1 122/3	165/13		
WITN329150 [1] 41/16	wrongly [1] 145/4	132/10 144/13 160/3	1.00/10		
••••••	*	•			

(69) window... - zoom