1	Monday, 16 September 2024	1	Q.	Was it as part of that role that you were
2	(10.30 am)	2		a non-executive director of the HSE from 1 June 2016
3	LADY HALLETT: Mr Scott.	3		until 31 July 2021?
4	MR SCOTT: Good morning, my Lady. May we call Kevin Rowan,	4	Α.	Well, there's a relation between the engagement with the
5	who can be sworn.	5		Health and Safety Executive, but non-executive board
6	MR KEVIN ROWAN (affirmed)	6		members are appointed in an individual capacity rather
7	Questions from COUNSEL TO THE INQUIRY	7		than on behalf of an organisation, but there's direct
8	MR SCOTT: Good morning, Mr Rowan.	8		relationship.
9	A. Good morning.	9	Q.	But it wasn't a <b>de facto</b> role?
10	<b>Q.</b> Would you please give your full name.	10	Α.	No.
11	A. My full name is Kevin Rowan.	11	Q.	Mr Rowan, just to contextualise questions I'm going to
12	<b>Q.</b> And you are the head of organisation and services	12		be asking you today, so I hope you forgive me if I don't
13	department of the Trades Union Congress; is that	13		ask you any questions about the structure of the TUC,
14	correct?	14		you've set that out in detail in your statement and also
15	A. More or less, I was until about a month ago, I now	15		her Ladyship has heard that evidence I think in the
16	I have a new role. But thank you, yeah.	16		previous four modules. We have also had Ms Gorton's
17	Q. In terms of that role, which I think was the role that	17		evidence last week about engagement forums and
18	you gave when you provided the statement to the Inquiry,	18		partnership arrangements. So I want to focus with you
19	could you provide a very brief summary of what that role	19		on health and safety protection.
20	entails, please.	20		You heard Mr Brunt's evidence from last Thursday.
21	A. That role heads a large department in the TUC which	21		Is there any comment that you wish to make in relation
22	covers a range of policy and campaign areas including	22		to that evidence?
23	across all public services, health and safety, trade	23	Α.	I think the one particular issue that struck me with
24	union renewal, and a few other things, but they're	24		listening to Mr Brunt's evidence was around his response
25	the main kind of core elements.	25		to the purpose of RIDDOR reporting. He seemed to imply,
1	and it's my impression of his evidence, that RIDDOR was	1		management, but it should also be an alert for the
2	principally a benefit for employers in their efforts to	2		regulator regulatory authority.
3	manage health and safety in the workplace. While	3	Q.	So it's more
4	I think clearly there's you know, all employers who	4	LAD	Y HALLETT: Sorry to interrupt. Can I just challenge one
5	end up in a situation where they have to exercise	5		of your statements, if I may, as a non-expert in this
6	a RIDDOR report, there needs to be a learning from that,	6		field, Mr Rowan. You said that if someone becomes ill,
7	a review of their health and safety management	7		that indicates that there has been a management system
8	practices, but there's a step before that that	8		failure. That's not necessarily so, is it? Someone
9	employers, all employers, need to undertake, and that's	9		might become ill and it may not be the employer's fault
10	a risk assessment. The risk assessment should inform	10		at all.
11	the health and safety management regime of employers.	11	Α.	No, absolutely, my Lady, that's right. But it's
12	RIDDOR is effectively a scenario where that health	12		an indication that there could be something wrong with
13	and safety management system has failed, where someone's	13		the management of the health and safety system.
14	been injured, made ill or where there's a dangerous	14	LAD	Y HALLETT: So they need to investigate.
15	occurrence in the workplace that could have led to	15	Α.	Exactly so.
16	a serious injury. So I think the bit that I thought	16	MR \$	SCOTT: So effectively it's a two-stage process, isn't
17	was I'd have liked to have heard from the Health and	17		it, RIDDOR making the report identifies to the employer
18	Safety Executive was that RIDDOR reporting should	18		that something's gone wrong because the employer feels
19	trigger evidence to the Health and Safety Executive for	19		that a report has to be made, and then there's a second
20	them to act in an enforcement and regulatory action,	20		stage which alerts the regulator and then it's up to the
21	because it's evidence of an employer failing to manage	21		regulator to have a much broader systemic view; is that
22	health and safety in the workplace.	22		an encapsulation of it?
23	So RIDDOR is absolutely useful in terms of it's	23	Α.	That's how it should happen, yes.
24				Before we deal with the RIDDOR system and going into any
25		25		great detail on that, you said that you were
	3			4

(1) Pages 1 - 4

1 ว	a non-executive director. What is the benefit of having	1		a failing that needs to be remedied?
2	independent directors, non-executive directors within	2	Α.	My view, and TUC's view, is that there's real value in
3	a regulator such as the HSE?	3		that tripartite conversation happening at a strategic
	A. Well, I was an employee representative on the board of	4		level in organisations like the Health and Safety
5	the Health and Safety Executive, and, you know, the	5		Executive. I think the absence of those representative
6	value I think that I brought in that role was I	6		voices to inform, to challenge, to check the strategic
7	a direct connection with, in my case, the kind of trade	7		operations of bodies like that, I think the absence
8	union movement and, if you like, therefore, a direct	8		of that I think is problematic. I think it weakens the
9	connection with trade unions and a direct connection	9		organisation. And I think you see this in Acas, you see
0	with workplaces and working people, and I could bring to	10		this in the Health and Safety Executive, the Low Pay
1	the board, if you like, the insight of that that	11		Commission, and I think the kind of feedback from all of
2	network of health and safety representatives who voiced	12		those organisations is that they're more effective when
3	concerns around health and safety issues at a workplace	e 13		they have the opportunity to hear those voices.
4	level, and bring that kind of, if you like, perspective	14	Q.	Just dealing with the devolved nations as a whole, so
15	to the strategic and operational decisions that the	15		Wales comes within the auspices of the TUC as a whole
6	Health and Safety Executive takes. Similarly, there	16		Scotland and Northern Ireland don't, they have their own
17	would be employer representatives on the HSE board ar	nd 17		separate structures. Again, I'm not going to go over
8	independent members, sometimes from academia, some	times 18		the detail of that.
9	from other sectors.	19		Were you having discussions with your opposite
20 <b>C</b>	<b>Q.</b> Because we've seen from the statement from the Health	20		numbers across Scotland and Northern Ireland in
21	and Safety Executive in Northern Ireland sorry, the	21		particular about the type of issues that they were
22	statement about the Health and Safety Executive in	22		facing in relation to healthcare systems in Scotland and
23	Northern Ireland that for a number of years there hadn't	23		Wales?
24	been any non-executive directors in place. Would you	24	Α.	I mean, I don't think that I could say in all honesty
25	wish to make a comment on whether that reflects	25		that there was a systemic, consistent engagement with
1	collegation in the Section TUC or the Irich Congress of			
		1		And I think similarly in Scotland relations between the
	colleagues in the Scottish TUC or the Irish Congress of	1		And I think similarly in Scotland, relations between the Scottish Parliament and the Scottish TLIC were much
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### **UK Covid-19 Inquiry**

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1	exposed as flaws in our health and safety system.
2	I think certainly the first point is identification of
3	data which would alert both employers and regulators to
4	the existence of significant risk.
5	The way that report RIDDOR was actioned and the
6	way that employers were advised around RIDDOR, so the
7	argument that they needed medical certificates around
8	Covid-19, meant that there wasn't the gathering of
9	intelligent data about the presence of risk of Covid-19
10	exposure in workplaces. In my view, that is what RIDDOR
11	should do, because what RIDDOR does is it gathers data
12	about risk beyond the workplace level, because it's
13	a report to the Health and Safety Executive. So that's
14	the first thing.
15	I think that would have informed or should have
16	informed that healthcare settings, with the emergence of
17	the pandemic, then became a high-risk sector. So the
18	intelligence would provide evidence of risk, gathering
19	that intelligence in a systemic way would identify
20	sectoral risks. That would then inform the Health and
21	Safety Executive's enforcement strategy. And HSE's
22	enforcement strategy is very effective: where it
23	identifies a high-risk sector there's an enforcement and
24	inspection regime which results in a significant impact
25	in those workplaces. A 40% material breach rate is 9

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2		of reporting incidents within the healthcare setting
3		during the pandemic?
4	Α.	I don't think RIDDOR worked anywhere near as well as we
5		would like it to. As I say
6	Q.	Is that a structural issue?
7	Α.	I think there are a number of factors. One is I don't
8		think most employers generally understand the duty that
9		they have under RIDDOR. That's one factor. The second
10		factor is I think they were given advice that, unless
11		there was a medical certificate proving that Covid was
12		contracted, they didn't need to produce a RIDDOR report.
13		And thirdly, there was the issue of cause and effect.
14		We know that there was a lot of contraction of Covid
15		in non-workplace settings, and it's not, you know, it's
16		not always going to be absolutely clear that Covid was
17		contracted in the workplace, but I I don't think that
18		employers were encouraged or particularly enabled to
19		provide evidence of Covid exposure in the workplace.
20		So I think there were three failings in the RIDDOR
21		system which, you know, if the first thing that you need
22		to act is data of risk, there are three different
23		factors that prevent that data being produced. So
24		straight answer is that, no, RIDDOR didn't work in the
25		way that we would want it to.
		11

explanation -- in your view, did RIDDOR work, in terms

about standard.	That's where an inspector will id	entify
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2 a material breach of health and safety law in 40% of

3 cases ---

LADY HALLETT: Sorry to interrupt, Mr Rowan. I appreciate 4

- you're in full flow, it's just that you're going very
- 6 quickly. I've got a feeling I might get some complaints
- 7 from the stenographer.
- 8 A. Well, my apologies to the stenographers, my Lady.
- LADY HALLETT: Sorry, I interrupted you. 9
- 10 A. No, that's all right.
- 11 LADY HALLETT: An inspector will identify a material breach
- of health and safety law in 40% of cases. 12
- 13 Yeah. So if you have -- the data point starts in Α.
- 14 workplaces where employers identify where health and
- safety regulation in their own management systems has 15
- broken down. That leads to a RIDDOR report. The RIDDOR 16
- 17 report is then collected by the Health and Safety
- Executive. That would have identified the health and 18
- 19 care sector as being a high-risk sector. That should
- 20 have then informed a Health and Safety Executive
- 21 operational and strategic approach, which would have
- 22 resulted in other high-risk sectors' inspectors
- 23 identifying material breaches and issuing enforcement
- 24 actions to correct those breaches.
- 25 MR SCOTT: Can I just ask, Mr Rowan -- a very helpful 10

1	LADY HALLETT: Are you saying that what's the timing for
2	that comment, Mr Rowan? In the early days, obviously
3	there was a great deal of uncertainty, whether or not
4	people would get tests. Are you saying it didn't work
5	throughout the pandemic or are you saying that it was
6	when the uncertainty had gone and people could say
7	whether or not they actually had Covid?
8	A. I don't think it worked during the pandemic, my Lady.
9	I think and my understanding is that the guidance
10	around RIDDOR changed a number of times during the
11	pandemic, which wouldn't have helped clarity for
12	employers in what they report. But we've seen very
13	little evidence of RIDDOR being the mechanism that then
14	informed regulatory or enforcement action. So I find it
15	hard to identify a scenario where RIDDOR has worked in
16	this Inquiry question.
17	MR SCOTT: Well, then, let me ask you three different
18	options, and you may tell me it's none of the three:
19	could RIDDOR work in its current format, is option 1;
20	option 2 is could RIDDOR work but actually does need
21	effectively to be rewritten to deal with the pandemic;
22	or, number 3, do you need, in a pandemic time, something
23	separate to RIDDOR which does a different job but has

- 24 the same aims?
- 25 A. I mean, they're three different questions. I think for 12

1 RIDDOR to work well, it needs to be clear, understood 2 and employers need to respond to the -- their duty under 3 RIDDOR. For a long time, we have been reporting that 4 RIDDOR produced significant under-reporting of health 5 and safety risks generally. So it doesn't work in its 6 current format. 7 To answer the last question first, if I may, and 8 I think, to be fair, we were all learning about the 9 Covid pandemic and how risks were -- how infections 10 were, you know, being spread. A sensible approach would 11 be to say: where we're unsure about, you know, kind of 12 those airborne viruses or how viruses are transmitted, 13 the most safe approach would be to gather as much data 14 as possible and to share that data as early as possible. 15 I don't think that was the case with RIDDOR. In 16 fact, you know, some of the guidelines, particularly 17 around things like medical proof of Covid, actually 18 dissuaded employers from gathering and reporting that 19 evidence. So I think there's certainly -- the 20 indications would be you need a specific approach to 21 managing those risks in a pandemic. I think there's 22 a specific set of circumstances that would apply in 23 that. So I guess yes is the answer to your third 24 question: I think it needs specific circumstances for 25 specific hazards. 13

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regulated system and they are low risk. I mean, to my understanding, there are huge numbers of incidents of injury or ill health spread amongst the healthcare workforce generally. In a pandemic, and I think this was especially evident when we were hearing about failings around protective equipment, any logical assessment would identify that relatively early as a potentially high-risk environment, and that should have, in my view, 10 led to a review of the Health and Safety Executive's regulatory priorities. It's a very effective 11 12 organisation in high-risk sectors. What my concern is 13 that it didn't pivot to treat the healthcare sector as 14 a high-risk sector. 15 Q. Do you think that every infection of a healthcare worker 16 should have been reported to the HSE? 17 **A.** I think, given what we know about the exposure to risk, 18 that it was a high-risk setting, that there were huge 19 problems with personal protective equipment and the 20 potential risk to individuals, I don't think it's 21 unreasonable that an employer in that setting should be required to record and report incidents of Covid -- all 22 23 incidents of Covid. 24 Q. Is it fair that, simply because there has been a report, 25 that there doesn't necessarily have to be

15

Q. Because this comes back to your point, doesn't it, in 1

- 2 terms of the breadth of the view of the regulator that
- 3 it would have much wider knowledge if it's receiving
- 4 RIDDOR reports from across the entire country, or
- England and Wales, rather than individual employers who 5
- 6 are making individual reports, who may have
- 7 an understanding within their own employment area but
- 8 a regulator should be able to identify more than that?
- 9 A. That's absolutely right. If you don't have intelligence
- 10 from -- if you don't have data then you can't have
- 11 intelligence, and if you don't have intelligence you
- 12 can't act, and the systemic process by which you
- 13 identify and gather that data and intelligence to then 14 inform your actions was absent.
- 15 Q. Because I think, again, Mr Jacobs was saying on Thursday
- 16 that healthcare settings in a non-pandemic time tend to
- 17 be considered low risk because they're well aware of
- 18 infection risks and control. Don't they then switch to
- 19 high risk when you're in a setting, such as a pandemic,
- 20 where you have a novel infection that is spreading in
- 21 a way that people aren't entirely certain about?
- 22 Α. It seems to me that -- I mean, certainly, it is the case 23 that, because, of the regulatory nature of the
- 24 healthcare sector, there are procedures, there are
- 25 processes, people kind of tend to work within a very 14

1		an investigation. It can simply be that you're
2		recording information about the circumstances of that
3		individual, in this case, infection?
4	Α.	Yeah, I think that's fair. There'll be scenarios where
-	А.	
5		people work in the healthcare environment, that don't
6		have direct engagement with patients who have Covid,
7		will contract the virus. People working, you know, in
8		kind of ancillary roles often will not come into direct
9		contact with a patient but it's important that they're
10		recorded because we also know that people working in
11		those, if you like, less direct roles were less likely
12		to be in the front of the queue for personal protective
13		equipment. So their risk of exposure would have been
14		different to healthcare workers in the frontline.
15		So it is but their lives are equally valuable,
16		their health and wellbeing is equally valuable, so it is
17		important that when they do contract, if they do
18		contract Covid-19, that that is recorded, and it may be
19		that that would then inform the health and safety
20		management practice of those employers.
21	Q.	Because without those reportings, based on your
22		experience in the role at TUC and as the non-executive
23		director of HSE, are you actually able to track all the
24		various different groups, and I mean that, whether it's
25		protected characteristics, or the equivalent in Northern 16

1		Ireland, or otherwise, in terms of their job role,
2		unless you know who's been infected in a healthcare
3		setting, how do you actually know, effectively, what the
4		impact is and where people are getting infections from?
5	Α.	That's exactly right. I mean, the first step any
6		employer should do, and all employers have a duty to do
7		this, is to assess risk. They should, in situations
8		where those risks change, so when we have a pandemic
9		coming into our society and our economy, they should be
10		reviewing those risk assessments. If they're monitoring
11		then the health of their workforce, as they should, and
12		you may have, you know, a group of, you know, cleaning
13		staff who, again, may not have been able to access
14		personal protective equipment in the way that frontline
15		healthcare workers, if that group of workers, a high
16		percentage of them contract Covid, then you would need
17		to look at your health and safety management system to
18		make sure that those workers are protected.
19		So, unless you have that data, you're not going to
20		know that you need to change your health and safety
21		management practice, and the same is true when you take
22		that above the workplace on to a sectoral or wider
23		level. If the Health and Safety Executive don't have
24		the intelligence that sectors or groups of particular
25		workers have a higher prevalence of exposure to the
		17
1		virus among certain groups of our community and certain
2		groups of workers. And again, that would inform
3		an intelligent approach to how you regulate and enforce
4		amongst those group of workers.
5		We know that ethnicity was a particular concern in
6		the experience of Covid-19 exposure to Covid-19. We
7		also know occupational groups were more or less
8		prevalent to contracting the virus depending on their
9		roles.
10	Q.	When you say occupational groups, would you also then be
11		looking to record where they were actually working at
12		the time, in case somebody's been redeployed,
13		for example?
14	Α.	So the we know from our experience that, you know,
15		workers who were in more populated occupations or
16		populated areas would certainly be more likely to
		· · ·

- 17 contract the virus, so that was a factor, and there
- 18 are -- so there's an occupational, if you like,
- 19 characteristic that would inform any kind of regulatory
- 20 or enforcement regime, and as we've just been
- 21 discussing, we know that the healthcare sector as
- 22 a whole moved from low risk to high risk. So there are
- 23 sectoral factors to consider as well as occupational
- 24 factors as well as personal characteristics.
- 25 LADY HALLETT: Can I interrupt, can I just go back to the 19

virus than others, then the Health and Safety Executive 1 2 has no evidence or intelligence to change its regulatory 3 regime. 4 Q. Could I take the next part in three different sections: first it's going to be reporting; then there is going to 5 6 be recording by the regulator; and then investigation by 7 the regulator. 8 So dealing first with the reporting point: in 9 healthcare settings, should there be any limit on what 10 is being reported, do you think, in terms of whether someone suffered an infection? 11 I don't see a case for not providing as much evidence 12 Α. 13 and information as you've got when you're dealing with 14 a Covid pandemic that's killed tens of thousands of people. I just don't see how that's a reasonable 15 16 approach. 17 Q. Would that then extend to what should be recorded by the 18 regulator about the information that's provided to them? 19 Α. I think the kind of information that should go to 20 a regulator -- you know, again, the more you limit it, 21 the less intelligent decision-making the regulator is 22 able to make. So the more information you have, the 23 better decisions you can make. 24 So factors such as ethnic group should be included? Q. 25 Δ. We know that there were a particular prevalence of the 18 1 basics, if I'm an employer and I make a RIDDOR report, 2 is there a form I fill in or -- and if so, what 3 information does that form require of me? Very roughly. 4 Α. Yeah. So there's both a hard copy and an online form 5 that employers are required to complete, my Lady, and 6 that will detail the nature of the incident, the nature 7 of the injury or illness, that's provided, and 8 a description of the factors that the employer might 9 believe have contributed to it. LADY HALLETT: So will it depend on whether the employer 10 11 thought that ethnicity was a relevant factor? 12 A. I'm not sure I can answer that, my Lady, to be honest. 13 I'm not an expert in the report --14 LADY HALLETT: But ethnicity isn't necessarily a factor that 15 has to be reported, so, for example, with the pandemic --16

- 17 A. Correct -- sorry, yeah.
- 18 LADY HALLETT: So that wouldn't have been -- even if the
- 19 employers had all been fulfilling the RIDDOR
- 20 regulations, as you say they weren't, that ethnicity
- would not necessarily have come through, it depends onthe employer?
- 23 A. I think that's right, my Lady. I couldn't say with
- 24 certainty, but I think that's right.
- 25 **MR SCOTT:** Do you need to record the same information from 20

1		the healthcare system as you would from other sectors,	1
2		for example, in the middle of a pandemic or, as you say,	2
3		that the risk in the healthcare sector is maybe higher	3
4		than it is in other sectors?	4
5	Α.	I think the reporting is standard across sectors as it	5
6		currently currently operates. I think the point that	6
7		we were discussing earlier is relevant in that we know	7
8		that there was a significant increase in risk in the	8
9		healthcare sector, so the kind of things that would have	9
10		been normally recorded in any kind of RIDDOR	10
11		investigation would apply to the healthcare sector. So	11
12		things like provision of PPE, things like work systems,	12
13		things like social distancing, and the existence of risk	13
14		assessments and good management would be the kind of the	14
15		normal things that are recorded and reported.	15
16	Q.	But reporting may be standard but does it need to be	16
17		standard, when you're talking about in the context of	17
18		a pandemic, to make sure that you're getting the best	18
19		information?	19
20	Α.	I mean, I think because I think we were in a particular	20
21		scenario where there was a new set of risks because of	21
22		the existence of the virus, there was a need to record	22
23		more data than RIDDOR would require. So what RIDDOR	23
24		would normally demand is that incidents were occurred	24
25		as a direct relation to something that happened in 21	25
1		reporting of instances of Long Covid or do you think it	1
2		was underreported?	2
3	Α.	· · · · · · · · · · · · · · · · · · ·	3
4		aspects, including the impacts of long-term impacts	4
5		of Covid.	5
6	Q.	Moving then to the regulator has received this	6
7		information, at what point should it look to start to	7
8		investigate or take steps in relation to what	8
9		information it has received?	9
10	Α.	So I think if the reporting system was working well, it	10
11		would identify occupations or sectors that are more at	11
12		risk of contracting the virus than other sectors. That	12
13		should trigger a systemic response from the regulatory	13
14		authority to pay you know, to investigate more, to	14
15		inspect more, in those sectors. So that would be one	15
16		instance.	16
17		I think where there's clear evidence of occupational	17
18		activity, and that could be inadequate supply of	18
19		personal protective equipment, it could be evidence of	19
20		employers not following the guidelines that were issued	20
21		to try to protect workers, any of those incidents should	21
22		lead to some kind of regulatory activity, some kind of	22
23		enforcement activity.	23
24	Q.	Because what's the benefit in the context of a pandemic	24
25		of having enforcement?	25
		23	

quir	у	16 September 2024
1		an occupational setting.
2		I think for a lot of cases and a lot of circumstance
3		it wouldn't necessarily have been obvious that the if
4		someone got you know, contracted Covid that that had
5		occurred in the workplace. But it may have done. So
6		I think in these particular circumstances, it would be
7		more important that employers were reporting incidents
8		of Covid across the board rather than where they could
9		directly associate the risk of exposure with something
10		that had happened in the workplace.
11	Q.	Would you also be looking to record, although this might
12		not be something that was reported at the time when, in
13		this case, an infection has been caused, would you be
14		looking to record any long-term effects such as
15		Long Covid?
16	Α.	I think that's important, as, you know, we were and
17		to some degree still are learning about the
18		longer-term impact of Covid, and there's ongoing
19		conversations around industrial injuries benefit and
20		whether this is a prescribed illness in the workplace.
21		So I think gathering the evidence to support that debate
22		and that discussion is going to be really important,
23		yeah.
24	Q.	Do you think in the way that RIDDOR was applied to
25		Long Covid do you think that there was sufficient
		22
1	Α.	Well, the benefit of enforcement is fundamentally to
2		correct poor behaviour or poor management systems that
3		are there to protect employees. As I've said, the HSE
4		is extremely effective, in my view, in informing
5		employers about the right way to manage health and
6		safety and to act as a check against employers who
7		aren't effective at managing health and safety, and
8		removing those hazards and making sure that employers do
9		manage health and safety well. That's what saves lives.
10	Q.	How effective, in your view, was the Health and Safety
11		Executive at actually carrying out that inspection and
12		enforcement process during the pandemic?
13	Α.	Well, what the in my view, the Health and Safety
14		Executive should have done was understand that the
15		health and care sector became a high-risk sector during
16		the pandemic and applied its very effective regulatory
17		regime in high-risk sectors to the healthcare setting.
18		It would have then led to more inspections, more
19		engagement with employers and would, undoubtedly, in my
20		view, have improved health and safety management in
21		those sectors.
22		I think and I think you have the numbers, but
23		I don't think we saw any increase in engagement between
24		the Health and Safety Executive and the healthcare

sector during the period of the pandemic. 24 5

(6) Pages 21 - 24

n, from your perspective, was that a capacity issue	1		where it's very effective and how it's very effective,
t?	2		but I think as and I would agree with Rick Brunt's
k certainly there are huge capacity challenges in	3		comments last week, that inspections and enforcements
lealth and Safety Executive, the number of warranted	4		through enforcement action is one, if you like, arrow in
ectors has gone down dramatically in the last 10,	5		their quiver. They work with employers to provide good
ears or so, so the ability of the Health and Safety	6		quality guidance and to develop good practice and lots
utive to be agile and to respond to, if you like,	7		of kind of education of duty holders in that regard.
en changes in the health and safety risks across the	8		But for me the most effective way to correct
omy is limited. But we also know that the Health	9		employers who are not managing health and safety well is
Safety Executive stood down from proactive workplace	10		warranted inspectors. I have been on workplace visits
ections in that period. So I think there's	11		with warranted inspectors: they walk through the door,
inly capacity issues across the HSE but I'm not	12		employers stand to attention, they listen and they act
that's the only factor that informed, in my view,	13		immediately when the warranted inspectors give them
k of engagement in the healthcare sector.	14		an instruction to do so. It's a hugely effective tool
e of those factors funding?	15		and it wasn't deployed, in my view, as well as it could
k funding is absolutely a factor, I think the	16	_	have been during the pandemic.
et of the Health and Safety Executive's been halved	17	Q.	
e last 15, 20 years, so it's huge impact.	18		believe that the HSE does have the tools and it's simply
are aware in terms of what was said to Ms Gorton	19		a matter of deployment, rather than there are additional
erday about the Chair's understanding of funding	20		tools required?
ions; are there any other factors that arise in	21	Α.	5
on to the Health and Safety Executive in the way	22		manages really well with the resources that it's got
t was carrying out enforcement?	23		but, if it was to be required to respond in an agile way
ot sure that I'm really able to answer that,	24		to a new and significant health risk, it would struggle
an, I think the Health and Safety Executive knows 25	25		to do that with the resources that it's got, in my view. 26
s it have sufficient technical skills, or is there	1		regulatory and enforcement regime to pivot and operate
of a grey area between it and, in this example,	2		differently to try and make sure that as few people were
CQC about the areas that it has oversight of?	3		injured as possible.
think it's probably the other way round, I think	4	MF	<b>R SCOTT:</b> My Lady, given the breadth of the answers and the
lealth and Safety Executive certainly has the	5		look forward in terms of the health and safety
nical skills and expertise to understand risks in	6		perspective, I have no further questions.
orkplace, to understand what management controls	7	LA	DY HALLETT: Thank you very much, Mr Scott.
eeded in the workplace and to provide the advice	8		I think there's one question, is it, Mr Puar?
guidance to those employers to manage those risks.	9		Questions from MR PUAR
n terms of any lessons learned from your	10	MF	<b>R PUAR:</b> I ask questions on behalf of a group of bereaved
pective about the way that the Health and Safety	11		families in Wales, and I just have a few questions for
utive was able to approach its enforcement	12		you.
ions, are there any recommendations of lessons that	13		In your written evidence, and your evidence today,
hink should be learned that haven't yet been	14		you contrast the relationship that the TUC had with the
ed?	15		UK Government and that of the relationship that they had
ss the whole, because I think you have to look at	16		with devolved nations, and you make reference to the
at all three stages, I think certainly the ability	17		term "machinery" being in place to allow regular
ther sufficient valuable data about how Covid was	18		dialogue between the TUC and the Welsh Government. Can
cting on workplaces and causing infection and ill	19		you perhaps expand upon that and explain what was that
	20		machinery in place?
h was systemic, a huge systemic flaw, in my view,	21	A.	I can try but, perhaps, my Lady, if we could kind of
h was systemic, a huge systemic flaw, in my view, idn't find the right way to gather data about where	22		follow that up with (inaudible), it's not my area of
			expertise but, certainly, my understanding is that we
idn't find the right way to gather data about where	23		expense but, certainly, my understanding is that we
idn't find the right way to gather data about where le were being made ill in the workplace.	23 24		have a social partnership and social dialogue forum and
ic	e were being made in in the workplace.		

# UK Covid-19 Inquiry

1		close and pretty regular dialogue with the Welsh
2		Government across the board.
3	Q.	Can you provide any practical examples on the ground
4		where this dialogue with the Welsh Government led to
5		a better health and safety outcome for healthcare
6		workers in Wales than it did in England?
7	Α.	Apologies, I'm not able to provide that level of detail,
8		but I'll happily kind of provide some evidence later if
9		that's helpful.
10	MR	PUAR: Thank you.
11		My Lady, those are the questions.
12	LAI	DY HALLETT: Thank you very much.
13		Thank you very much, Mr Rowan, that completes all
14		the questions we have for you. Thank you very much for
15		your help.
16	тні	E WITNESS: Thank you, my Lady. Cheers.
17		(The witness withdrew)
18	LAI	DY HALLETT: Mr Fireman.
19		FIREMAN: Thank you, my Lady, may I please call
20		Ms Rozanne Foyer.
21		MS ROZANNE FOYER (affirmed)
22		Questions from COUNSEL TO THE INQUIRY
23	MR	FIREMAN: Ms Foyer, could you please give your full name?
24	Α.	Yes, my name is Rozanne Foyer.
25	Q.	Thank you. You have given evidence before to this
20	ч.	29
1		Scottish Government?
2	Α.	
3		the Scottish Government, I would say that we have a high
4		level of engagement, it's constructive and it's robust.
5	Q.	Did that remain the case during the pandemic?
6	Α.	I would say it became even more the engagement was
7		more intense during the pandemic and more regular
8		because of the nature of what we were dealing with.
9	Q.	You've set out in your witness statement that you agreed
10		something called the Coronavirus Fair Work Statement
11		with the Scottish Government.
12		If we could just get that on screen, it's
13		INQ000107242, and if we could go to page 2, please.
14		What we're looking at there are some principles that
15		you have agreed with the Scottish Government in terms of
16		how to approach the workplace and protecting workers
17		during the pandemic; is that right?
18	Α.	That's correct, yes.
19	Q.	We can see obviously some of those, particularly those
20		towards the bottom of the page, are particularly
21		pertinent to healthcare workers, protecting the health
22		and safety of all workers, particularly those on the
23		frontline and, of course, ensuring that workers are
24		provided with clear and comprehensive information on
25		work related risks on an ongoing basis.
		31

1		Inquiry, but you have given a witness statement to
2		Module 3. That's INQ000411604. Can I just check you've
3		got that accessible to you?
4	Α.	Yes, I do.
5	Q.	Thank you.
6		You are the general secretary of the Scottish Trades
7		Union Congress; correct?
8	Α.	That's correct.
9	Q.	We just heard from Mr Rowan of the Trades Union
10		Congress, and I think it's clear, isn't it, that the
11		Scottish Trades Union Congress operates in a very
12		similar way to the Trades Union Congress
13	Α.	Yes, we do.
14	Q.	albeit, of course, its remit is in Scotland?
15	Α.	Yes, we cover over 500,000 members based in Scotland and
16		have a similar range of affiliates who separately
17	_	affiliate to the Scottish TUC.
18	Q.	Thank you. With respect to the work that the STUC does,
19		you've explained in your witness statement that it
20		co-ordinates, of course, work that's done with health
21		and social care unions among other unions, in terms of
22		their engagement with the Scottish Government and
23		ministers and Cabinet Secretaries.
24		Would you consider that, generally speaking, you
25		have a good level of access to and liaison with the 30
1		How effective do you consider agreeing this sort of
2		statement was in terms of establishing, I suppose,
3		a sort of contract between the Scottish Government and
4		workers?
5	Α.	The feedback we received from our member trade unions,
6		including those in health and social care, was that this
7		was a very effective document, it was used widely by
8		reps on the ground to remind employers of the
9		obligations that Scottish Government expected of them,
10		and a particular clause in it that was actually very
11		widely used by reps was the area around making sure that
12		workers didn't suffer any detriment for following
13		medical advice during their own sickness or absence. So
14		that was something that was used widely.
15	Q.	So is it something that you would consider would be
16		an appropriate thing to agree, were there to be any
17		other pandemic in the future, having this sort of
18		framework in place between the government and
19	Α.	Yes.
20	Q.	trade unions?
21	Α.	Yes, I would. I mean, it was agreed very early doors,
22		I believe it was agreed March or April 2020 and, as
23		I say, it was something that could be referred to by
24		reps across a range of settings, and empowered them to
25		demand, you know, certain obligations from their
		32

1		employer, if they felt they weren't getting anywhere.	1		a decade before were really compounded and it became
2	Q.	Thank you, that document can come down.	2		a really, really vicious cycle for our members because
3		If I can ask you about some of your specific	3		we had people who were having to shield and take time
4		concerns that you had during the pandemic, of course	4		off sick through the virus itself, but we increasingly
5		staffing is obviously something that is particularly in	5		had workers who were succumbing to burn-out, mental
6		your mind at all times, but you had, of course, just	6		health issues, and the more people who were taking time
7		I think like the TUC raised concerns prior to the	7		off, the harder it became for our workers who were on
8		pandemic, hadn't you, about the level of healthcare	8		the frontline to keep their services going.
9		workers within the workforce and vacancy levels; is that	9		So we had a really acute set of circumstances for
10		right?	10		a prolonged period that the workers were having to deal
11	Α.	That's right. I believe we produced in our evidence	11		with, and that really made the situation extremely
12		examples of motions that had come to our congress in	12		difficult, and we just didn't have the resilience and
13		2017, 2018 and 2019, all of which came from healthcare	13		the capacity from the beginning to really allow us to
14		affiliates who were raising concerns around staffing	14		deal with that. So even though extra resources were put
15		vacancies, lack of adequate workforce planning and	15		in, the experience of our members on the ground was that
16		issues around the resourcing of the sector.	16		the situation was extremely difficult.
17	Q.	There were, of course, some steps taken to bolster the	17	Q.	That's specific to healthcare?
18		workforce during the pandemic, weren't there, in terms	18	Α.	That's specific you know, we saw that coming through
19		of bringing back workers who were retired or	19		very highly in healthcare, yes.
20		unregistered? Do you think those steps adequately	20	Q.	You touched on some of the other factors that you
21		filled the gaps?	21		mention, including, I think, what you phrased as
22	Α.	No, I don't. There was much evidence provided by our	22		burn-out.
23		affiliates that what was already a bad situation at the	23	Α.	Yes.
24		outset of the pandemic caused by, you know, the	24	Q.	So would it be the case that you consider there's
25		austerity measures that had been taking place for up to 33	25		an inextricable link between levels of staffing and 34
1		burn-out, or the impact on the mental health and	1		healthcare workers in terms of maintaining their mental
2		wellbeing of those workers?	2		health and wellbeing during the pandemic, or indeed
3	Α.	Yes. There's a number of our healthcare affiliates that	3		generally?
4		carried out surveys over that period that we've touched	4	Α.	I'm not aware of specific programmes within NHS
5		on in our evidence, and you can see that coming through,	5		Scotland, however I have seen evidence that well,
6		that staff having to work excessive hours, that levels	6		health and social care was merged by the Scottish
7		of understaffing are, you know, consistently quoted and	7		Government and integrated in 2016, so some of our
8		that word burn-out, you know, 80, 90% levels of burn-out	8		surveys cover health workers and social care workers.
9		being quoted in various different staff surveys.	9		But my understanding is that, certainly in social care,
10	Q.	I think within your witness statement one of the areas	10		there was evidence that there wasn't support, there was
11		you touch on is pharmacists.	11		a survey carried out by GMB which is in our evidence
12	Α.	Yes.	12		bundle that referenced a real lack of support for
13	Q.	But was it the case that this assessment in terms of	13		workers' mental health. My understanding is that there
14		burn-out and the impact on all healthcare workers was	14		were some provisions with NHS Scotland but I'm not
15		the case across the board, both primary and secondary	15		familiar with them, you'd have to ask them about the
16		care, or were there particular areas where it was more	16		specifics of that.
17		acute?	17	Q.	Thank you very much, that's fine.
18	Α.	We had evidence came in from Unite, from the	18		In terms of the wider picture, it's not just, is it,
19		Pharmacists' Defence Association, from UNISON, from the	19		about the staff who were suffering? Of course that's
20		royal college of midwifery, a whole range of different	20		very important, but it's also about the impact that the
21		areas. So my observation would be that we were really	21		staff suffering with their own mental health issues may
22		talking that this was quite a general picture, rather	22		have on patients. Do you and I appreciate it's quite
23		than it being one particular area.	23		a difficult question to assess but certainly from
24	Q.	Are you aware of whether there was any national	24		a concern perspective, did you have any concerns that,

25 programme in Scotland designed to tackle supporting 35

in fact, mental burn-out was having an impact directly	
36	

1	on the quality of care that was being provided to	1	Α.	Yeah. One of our affiliates, Unite, described their
2	patients?	2		members who worked in healthcare as being at breaking
3 <b>A</b> .	Yes, I think that that's something that came through in	3		point, and that was in, I believe, around August 2020,
4	the reports back that we were receiving. That was part	4		and I think that that just illustrates the level of
5	of the level of stress and concern that our members	5		anxiety that staff had about the provision.
6	expressed. They felt that, due to the staffing levels,	6	Q.	Just moving to a linked topic but from a slightly
7	the lack of resources, that they weren't you know,	7		different perspective, one of the things that you
8	that added to their burn-out, the feeling that they	8		mention in your witness statement is the particular
9	weren't able to give the sort of public service that	9		impact on workers from ethnic minority backgrounds, and
10	they would want to, to care for people. I think that	10		you cite a report that was done by UNISON Scotland in
11	the very nature of the role of care giving and	11		June 2020, looking at underlying inequalities and
12	healthcare workers, there's a lot of emotional	12		infection risks, specifically looking at black workers.
13	investment involved, in fact it's very important, that	13		I don't think this was specific to healthcare, but
14	human element is a very important aspect of care, and	14		it was looking at specifically the impact on ethnic
15	there was real frustrations coming through from staff	15		minority workers, particularly black workers, in this
16	that they weren't giving what you know, their feeling	16		report; is that right?
17	of a high standard of care because of the sheer lack of	17	Α.	Yes, and I think it needs to be seen through the lens
18	resources available and the burn-out that they were	18		that there are high levels of BME workers in health and
19	themselves experiencing.	19		social care in Scotland, it's, you know, a higher level,
20 <b>Q</b> .	So what's coming through from what you're saying is that	20		so it would have been very that report would have
21	this is all linked, really. Staffing levels are linked	21		been reflective of workers in that sector
22	to mental health issues; mental health issues are linked	22	Q.	In fact, if we have a look at that, or a section of it,
23	to the way in which you provide care; and not being able	23		in fact, that's INQ000215615.
24	to provide good quality care can impact on, again,	24		If we just go to page 3, just can see some of the
25	mental health of healthcare workers.	25		summarised points that arise from that report, and we
	37			38
1	can see there, under the heading "Black workers and	1		fear of some of these other aspects, fear of losing your
2	fear", we can see first of all that black workers are			job, more worried about reduced income, a link between
	lear , we can see inst of all mat plack workers are			
3		2		-
3 4	more fearful of infection. This was a report, it should	3		that and perhaps the areas in which healthcare workers
4	more fearful of infection. This was a report, it should be said, done in June 2020?	3 4		that and perhaps the areas in which healthcare workers were required to work, which may in fact have been
4 5 <b>A</b> .	more fearful of infection. This was a report, it should be said, done in June 2020? Yes.	3 4 5		that and perhaps the areas in which healthcare workers were required to work, which may in fact have been riskier than other areas, because those workers didn't
4 5 <b>A.</b> 6 <b>Q</b> .	more fearful of infection. This was a report, it should be said, done in June 2020? Yes. So of course then there may be multiple factors	3 4 5 6		that and perhaps the areas in which healthcare workers were required to work, which may in fact have been riskier than other areas, because those workers didn't necessarily have the confidence to challenge the fact
4 5 <b>A.</b> 6 <b>Q.</b> 7	more fearful of infection. This was a report, it should be said, done in June 2020? Yes. So of course then there may be multiple factors contributing to this but it would probably be sensible	3 4 5 6 7		that and perhaps the areas in which healthcare workers were required to work, which may in fact have been riskier than other areas, because those workers didn't necessarily have the confidence to challenge the fact that they may have been placed in particular riskier
4 5 <b>A.</b> 6 <b>Q.</b> 7 8	more fearful of infection. This was a report, it should be said, done in June 2020? Yes. So of course then there may be multiple factors contributing to this but it would probably be sensible to infer that one of the reasons for that fear may have	3 4 5 6 7 8	۸	that and perhaps the areas in which healthcare workers were required to work, which may in fact have been riskier than other areas, because those workers didn't necessarily have the confidence to challenge the fact that they may have been placed in particular riskier places?
4 5 <b>A.</b> 6 <b>Q.</b> 7 8 9	more fearful of infection. This was a report, it should be said, done in June 2020? Yes. So of course then there may be multiple factors contributing to this but it would probably be sensible to infer that one of the reasons for that fear may have been the higher proportion of deaths among black	3 4 5 6 7 8 9	А.	that and perhaps the areas in which healthcare workers were required to work, which may in fact have been riskier than other areas, because those workers didn't necessarily have the confidence to challenge the fact that they may have been placed in particular riskier places? Yes, I think that this is an area we really need to look
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1 able to raise issues is a massive factor. So if you're, 2 you know, affected by inequality, you're less likely to 3 feel that empowerment to be able to protect yourself in 4 such a grave situation. 5 Q. That can come down. 6 I suppose, following on from what you're saying, do 7 you think that there was a link between the quality and 8 level of risk assessments that were being done and the 9 fear that workers were experiencing and then, again, 10 another link to the types of workers who were 11 experiencing that fear? 12 Α. Yes, definitely. We found that many workers who were 13 being expected to self-risk assess hadn't been given 14 adequate training to do so when visiting people in home 15 care settings, and that would have affected a range of 16 health and social care workers. We also had a range of 17 agency workers, et cetera, who were not able to 18 adequately access sick leave, and there were real 19 concerns, certainly on the social care side of things, 20 that these workers were, you know, choosing to report 21 for work, you know, rather than have -- be unable to 22 feed their families, effectively. And that's a really 23 unfair decision to ask someone to make. So there were 24 some serious issues that we had that we raised at the 25 time with government around these areas. 41

1 statement, and of course we've just heard from Mr Rowan 2 and he touched on the role of the Health and Safety 3 Executive in some detail. One of the points you make in 4 your statement is you say that you weren't informed of 5 the fact that the HSE was pausing inspections of 6 healthcare settings during the initial period of the 7 pandemic. Why would you have expected to have been 8 informed of that? 9 A. Well, I think if we had been informed of it, we would 10 have been extremely concerned, because we would have, 11 in -- you know, for us, the healthcare setting at that 12 point was an extremely high-risk area for our members to 13 be working in, and we would have expected enhanced 14 reporting and resources going into looking at some of 15 the issues happening in those areas, not a withdrawal of 16 resource, which was the reality. Q. I can understand what you're saying about reporting, but 17 18 can you clarify what you mean by inspections, because 19 presumably because of the infection prevention and 20 control measures, it was not surprising that there may 21 have been steps taken to reduce more people going into 22 a healthcare setting at the time, so do you think that, 23 notwithstanding the infection prevention and control 24 measures that needed to be complied with, inspections 25 were so important that in fact it was necessary to

1 **Q.** I suppose just tying that again back to what we were

2 looking at before, do you think there is a higher

3 proportion of -- in fact I think you may have just

4 touched on it -- a higher proportion of ethnic minority

workers in more precarious roles --

6 A. Yes.

5

7 Q. -- therefore that's perhaps an explanation for why they8 were more fearful?

9 A. Yes, I think if you look at across healthcare and

10 social care settings, we have high numbers of workers

11 from BME communities working in these areas and working

12 in the lower paid jobs in these areas.

13 **Q**. Did the STUC take any action to raise these concerns

14 during the pandemic about the lack of risk assessments

15 or appropriate risk assessments for ethnic minority

16 workers?

17 A. Yes, we did. We had a number of meetings with the

18 Scottish Government through our Covid group, where the

19 issue of the lack of statistics in relation to BME

20 workers was raised with government and the need to do

21 more work on this area, and we had general concerns as

22 well around the under-reporting and lack of adequate

23 health and safety reporting in healthcare settings and

24 other areas.

25 Q. This is something you also touch on in your witness42

1		continue those even during peaks of the pandemic?
2	Α.	Yes, that's exactly what I'm getting at there. We
3		I think we would have had the view at the time that the
4		opposite needed to be happening, we needed to understand
5		as we were moving forward and learn lessons as we were
6		moving forward in what was a very difficult situation,
7		but nonetheless that lesson learning was a very
8		important aspect of work that was missed.
9	Q.	Without repeating evidence, you've also spoken about
10		RIDDOR and the requirements under those regulations.
11		I suppose if I could just give you the opportunity to
12		comment on anything further that was said by Mr Rowan in
13		relation to that, whether you have anything that you'd
14		like to add or anything you'd like to endorse or
15		anything from a different perspective?
16	Α.	Yeah, I mean, I would very much endorse Mr Rowan's
17		comments from the earlier evidence. It's our view that
18		there was an under-reporting that was problematic. We
19		actually had a situation where, in 2021, we had
20		a dispute with the Scottish Government at a later stage
21		sort of re-lockdown where they did not put
22		manufacturing, non-essential manufacturing, and
23		non-essential construction back into lockdown even
24		though we had a real prevalent strain of the virus

25 re-emerging, and we took issue with Scottish

problematic.

supply.

module's relevant period.

A. Yep.

A. Yep.

matter. And, you know, it is something that we raised,

Executive around a range of -- sometimes problem areas

and so we did have devolved workplace guidance that we

Government, of course it's a counterfactual scenario but

that you think you would have had a better opportunity

we did have discussions with the Health and Safety

with the devolved parts were around public health,

felt sometimes the Health and Safety Executive at

Q. Following on from your earlier comments about having

a good level of access and liaison to the Scottish

if this was in fact a devolved issue, is it something

to have challenged the Scottish Government on?

with the fact that health and safety wasn't devolved.

adequately enforced or taken account of by the Health

and Safety Executive, and that was something we felt was

You say in your witness statement at paragraph 53,

much more widely than the provision of the PPE was being

We had a situation where there was public safety

guidance getting issued and perhaps not getting

Q. Could I turn now to a separate topic to ask you about,

that's the provision of PPE for healthcare workers.

if you want it for reference, that you were aware of 46

given out for; and there were also issues with

ill-fitting PPE and symptoms that healthcare workers

were suffering from as a result of that ill-fitting PPE.

I focus on the first point that you made, that was

Q. Thank you, that's a very comprehensive summary. But if

Q. If we could please look at Jeane Freeman's statement, of

course she was the Cabinet Secretary for Health and

Sport for a considerable period of this period's of this

Q. Her statement and the paragraph I want to take you to is

I just read the beginning of it to you, it says: "A unique feature of the distinctive health

arm for the whole of the NHS in Scotland." If we leave that there and then go on to

infrastructure in Scotland, and one which made

24, it's INQ000493484. If we start with paragraph 24,

a significant contribution to the pandemic response, is

paragraph 191 of her witness statement, which is at

48

page, I think, 44, she expands on the benefits of NHS

the existence of National Services Scotland ('NHS NSS').

Amongst other functions, NHS NSS acts as a procurement

A. I think that we feel that there was certainly issues

UK level weren't really paying much attention to.

you know, public safety in Scotland and public health,

1		Government's policy on this, and they used Health and	1
2		Safety Executive statistics to push back on us and say	2
3		to us: well, you know, we don't think there is an issue	3
4		with work-based infection in these areas, because the	4
5		statistics are not showing it. And we believe that had	5
6		there been less under-reporting that, you know, that	6
7		wouldn't have been the picture that emerged.	7
8		So they were pointing to figures that you know,	8
9		to back up their arguments that perhaps were skewed	9
10		because of the under-reporting, and we actually took the	10
11		TUC report to Scottish Government on under-reporting of	11
12		RIDDOR when we continued the discussion about these	12
13		particular sectors, because we felt that there was not	13
14		enough resources going in across a range of sectors.	14
15		So I know that's not directly linked to health and	15
16		social care, but I think it's a good example of,	16
17		you know, our concerns more generally around the lack of	17
18		proper reporting.	18
19	Q.	I'm just conscious that you mentioned the discussions	19
20		you had with the Scottish Government. Is the issue of	20
21		RIDDOR reporting a devolved matter or a reserved matter,	21
22		do you know?	22
23	Α.	It's a reserved matter, but the Scottish Government were	23
24		using that UK information to inform their	24
25		decision-making, so it's it's very much a reserved 45	25
1		reports from trade unions at an early stage of the	1
1 2		reports from trade unions at an early stage of the pandemic that there were issues with staff in healthcare	1 2
2	A.	pandemic that there were issues with staff in healthcare	2
2 3	A. Q.	pandemic that there were issues with staff in healthcare settings getting access to PPE.	2 3
2 3 4		pandemic that there were issues with staff in healthcare settings getting access to PPE. Yep.	2 3 4
2 3 4 5		pandemic that there were issues with staff in healthcare settings getting access to PPE. Yep. Do you recall or are you able to summarise what you	2 3 4 5
2 3 4 5 6		pandemic that there were issues with staff in healthcare settings getting access to PPE. Yep. Do you recall or are you able to summarise what you think the main issues were in terms of access, was it	2 3 4 5 6
2 3 4 5 6 7		pandemic that there were issues with staff in healthcare settings getting access to PPE. Yep. Do you recall or are you able to summarise what you think the main issues were in terms of access, was it one of supply or was it simply a case of there just not	2 3 4 5 6 7
2 3 4 5 6 7 8 9 10		pandemic that there were issues with staff in healthcare settings getting access to PPE. Yep. Do you recall or are you able to summarise what you think the main issues were in terms of access, was it one of supply or was it simply a case of there just not being access within hospitals to the PPE or, in fact,	2 3 4 5 6 7 8
2 3 4 5 6 7 8 9		pandemic that there were issues with staff in healthcare settings getting access to PPE. Yep. Do you recall or are you able to summarise what you think the main issues were in terms of access, was it one of supply or was it simply a case of there just not being access within hospitals to the PPE or, in fact, just inadequate PPE in terms of the way in which it	2 3 4 5 6 7 8 9
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2 3 4 5 6 7 8 9 10 11 12 13	Q.	<ul> <li>pandemic that there were issues with staff in healthcare settings getting access to PPE.</li> <li>Yep.</li> <li>Do you recall or are you able to summarise what you think the main issues were in terms of access, was it one of supply or was it simply a case of there just not being access within hospitals to the PPE or, in fact, just inadequate PPE in terms of the way in which it fit</li> <li>I mean, there was a whole there was a whole range of issues. At the very beginning, there were some really acute supply issues at the beginning. It became then</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q.	<ul> <li>pandemic that there were issues with staff in healthcare settings getting access to PPE.</li> <li>Yep.</li> <li>Do you recall or are you able to summarise what you think the main issues were in terms of access, was it one of supply or was it simply a case of there just not being access within hospitals to the PPE or, in fact, just inadequate PPE in terms of the way in which it fit</li> <li>I mean, there was a whole there was a whole range of issues. At the very beginning, there were some really acute supply issues at the beginning. It became then a more complex range of issues, so we definitely had</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13 13
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q.	<ul> <li>pandemic that there were issues with staff in healthcare settings getting access to PPE.</li> <li>Yep.</li> <li>Do you recall or are you able to summarise what you think the main issues were in terms of access, was it one of supply or was it simply a case of there just not being access within hospitals to the PPE or, in fact, just inadequate PPE in terms of the way in which it fit</li> <li>I mean, there was a whole there was a whole range of issues. At the very beginning, there were some really acute supply issues at the beginning. It became then a more complex range of issues, so we definitely had issues with Scottish Ambulance Service at the very beginning, where there was a really acute lack of</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 7	Q.	pandemic that there were issues with staff in healthcare settings getting access to PPE. Yep. Do you recall or are you able to summarise what you think the main issues were in terms of access, was it one of supply or was it simply a case of there just not being access within hospitals to the PPE or, in fact, just inadequate PPE in terms of the way in which it fit I mean, there was a whole there was a whole range of issues. At the very beginning, there were some really acute supply issues at the beginning. It became then a more complex range of issues, so we definitely had issues with Scottish Ambulance Service at the very beginning, where there was a really acute lack of appropriate PPE; we had people across healthcare	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
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1	NSS and she says at 191:
2	"As noted, in terms of PPE, we had the advantage of
3	a single procurement arm for the whole of NHS Scotland,
4	namely NHS NSS which has a long-standing relationship
5	with the providers and manufacturers of PPE. That being
6	the case, at the very outset of the pandemic and despite
7	very high global demand and associated pricing, we were
8	able to increase the volume of PPE on order."
9	Pausing there and having taken that in, I suppose my
10	question to you is: did you consider or did you feel
11	that the supposed benefits of NHS NSS as they are
12	explained within Jeane Freeman's statement, were
13	translated into a good level of access of PPE for
14	healthcare workers on the ground?
15	A. So I guess at the outset what I would say is that we
16	didn't have any anything to compare what we were getting
17	to you know, perhaps what was happening across the
18	rest of the UK, so it's hard to know whether it made
19	a positive difference or not, from our perspective. But
20	what I can say to you is we consistently had a range of
21	issues raised with us which we raised with government,
22	and I know that these issues were also being raised
23	directly with NHS Scotland and with, you know, across
24	the social care sector as well where there were definite
25	failures to provide appropriate fit for purpose PPE to
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1	MR FIREMAN: My Lady, I'm conscious of the time.
2	LADY HALLETT: Yes, certainly.
3	I hope you were warned that we take regular breaks
4	for the benefit of those trying to transcribe the
5	proceedings. So I shall return at midday.
6	(11.47 am)
7	(A short break)
8	(12.00 pm)
9	LADY HALLETT: Mr Fireman.
10	MR FIREMAN: Thank you.
11	Ms Foyer, before we broke, we were just discussing
12	Jeane Freeman's evidence, and you were explaining how
13	the levels of supply of PPE may not always have
14	translated into access to PPE for healthcare workers on
15	the ground, so to speak.
16	If we could go back to something that Ms Freeman
17	says in her evidence, and this is at INQ000493484,
18	paragraph 200. She describes at paragraph 200 something
19	called the "PPE helpline", and she says that:

"... the Scottish Government set up and managed

contact if they did not have access to the PPE that they

needed, or if they had other concerns regarding PPE ..."

Was this helpline something that you were

a dedicated PPE helpline mailbox for HSC staff to

And that was set up in April 2020.

1		the right people on the ground.
2		And I think that's the real value that we brought to
3		the table because you can have all these procedures in
4		place and all the procurement and all the systems, and,
5		from Jeane Freeman's point of view, it might have all
6		looked tickety-boo but what we were able to inform the
7		minister of and government of was that that was not the
8		reality for workers on the ground, in far too many
9		cases, and, particularly, at the start things did get
10		better but there were still ongoing and consistent
11		issues that took place throughout the pandemic for our
12		workers on the ground.
13	LA	<b>DY HALLETT:</b> You say you informed the minister, so you
14		informed Ms Freeman at the time of these issues?
15	Α.	Yes, there were early meetings that took place with the
16		minister, particularly around now, it was either with
17		Ms Freeman or it was with Fiona Hyslop, the Economy
18		Minister, but they're both cabinet secretaries, but at
19		very senior level of government, we were raising issues.
20		There was actually a point at which the Scottish
21		Ambulance Service was about to walk out, very early on,
22		on health and safety grounds and we had very high level
23		emergency meetings to get issues dealt with, because
24		they just didn't have the access to the PPE they
25		required.
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1		particularly aware of and, equally, something that you
2		felt that healthcare workers were properly aware of in

2		felt that healthcare workers were properly aware of in
3		case they needed to contact the helpline?
4	Α.	So I do I am aware that there was such a helpline,
5		but I think you probably have to ask the health unions
6		in Scotland for more specific examples of how widely
7		used or helpful they felt the helpline was. It was
8		certainly something that was publicised and that we were
9		aware of and promoted, but it was really more done at
10		the level there were direct discussions between
11		healthcare unions in Scotland and NHS Scotland, through
12		STAC and industry leadership groups, that took place
13		that the STUC wasn't party to, and I think there's
14		probably better people than myself to comment more
15		deeply on that.
16	Q.	Okay, thank you very much. That can come down in that
17		case.
18		Turning then to a topic which I think you touched on
19		briefly before in relation to aerosol-generating
20		procedures, and you said that there were concerns about
21		that and the distinction drawn between
22		aerosol-generating procedures and other procedures,
23		particularly, I think, you're drawing the distinction
24		between areas in which respirators were recommended and
25		areas in which they weren't.
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### **UK Covid-19 Inquiry**

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1		You mention a particular concern about a specific
2		procedure, chest compressions, not being designated as
3		an aerosol-generating procedures. Just to clarify, is
4		your concern that it should have been, in terms of what
5		you were hearing from healthcare workers, they wanted it
6		to be deemed an aerosol-generating procedures and it
7		wasn't, or were there concerns that it was in fact
8		something that shouldn't have been and there was time
9		being taken up putting on unnecessary PPE?
10	Α.	No, the concern was very much that they wanted it to be
11		classified as an AGC sorry
12	Q.	An aerosol-generating procedure?
13	Α.	Yeah, and it wasn't, and that was something that,
14		according to the feedback we received, caused a lot of
15		resentment and a feeling of, you know, unfair practice
16		among the workforce. So it was it had a bad effect
17		on morale. There were also other areas that the
18		chartered society for physiotherapists raised, that they
19		felt key practices they carried out were also
20		aerosol-generating procedures but weren't recognised
21		within the guidance as such.
22	Q.	You mentioned you felt this caused resentment. Are you
23		able to explain a bit more about what you felt the
24		effect of not designating these procedures as
25		aerosol-generating procedures had on healthcare workers 53

1 Q. Just to pick up on that, is it your view that there 2 should have been more discretion for healthcare workers 3 to make decisions about what the appropriate PPE was for 4 them to wear rather than --5 A. Yes. 6 Q. -- it being mandated by national guidance? 7 Α. Yes, I mean, there's a place for national guidance and 8 we probably would have wanted to see an improvement to 9 it, but ultimately I think we would have wanted to see 10 workers' voices being given a primary consideration in 11 that, and if it was felt to be required then it should 12 have been provided. 13 Q. You also mentioned concerns about ill-fitting masks, and 14 is that also with respect to respirator masks, 15 FFP3 masks in particular? A. Yes, there were issues raised with our affiliates about 16 17 resultant skin conditions and issues for workers wearing 18 ill-fitting FFP3 masks, but also there was a gender issue in relation to the default seemed to be that it 19 20 was fitted for a male face and that for many women 21 working in healthcare settings this was a problem that 22 was identified. So it is something that I'm aware that

- 23 healthcare unions were raising consistently.
- 24 Q. This issue about the potentially gendered aspect to it, 25

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and indeed I think you even describe in your witness
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1	and, indeed	l, their trust in	national	guidance?
				0

- 2 A. Yeah. Well, it was very detrimental, because we're
- 3 talking about workers who were already scared, stressed,
- felt they were putting themselves and their families at 4
- risk in going to work every day, and if they felt that 5
- 6 they were being denied access to appropriate PPE, that
- 7 would only intensify that stress.
- 8 Q. Okay. You also describe in your statement the --
  - I think it's from the RCM, the Royal College of
- 10 Midwives, saying that they reported that FFP3 masks had
- 11 been or they felt were being rationed.
- Do you see any link between the designation of 12
- 13 aerosol-generating procedures and that concern that FFP3
- 14 masks were being rationed?

those situations.

- Yes. I do, and ultimately I think our preference would 15 Α.
- 16 have been for access to PPE to be worker-led. We're
- 17 talking about well trained, experienced clinicians who
- 18 should have been allowed to determine in what
- 19 circumstances they would require the PPE, and, you know,
- 20 there's a difficulty there when -- you know, if
- 21 a midwife or a physiotherapist or, you know, a nurse
- 22 identifies that they need that when it's been denied to
- 23 them through guidance, that we felt shouldn't have been
- 24 happening, the workers should have had more agency in

1		statement that there was also an issue in terms of
2		ethnic minority
3	Α.	Yes, that's right.
4	Q.	healthcare workers as well
5	LAD	<b>DY HALLETT:</b> It was the white male face was the default
6		setting, I think, wasn't it?
7	Α.	Yes, indeed, indeed.
8	MR	FIREMAN: Is this something which you were aware of or
9		indeed the STUC were aware of prior to the pandemic or
10		is this something which in fact came to light as the
11		need to use these respirators was increased?
12	Α.	So, again, I think that's probably a question for our
13		healthcare unions. It certainly wasn't something that
14		I was aware of the STUC being aware of prior to the
15		pandemic, but I think it's something that during the
16		meetings it became clear to me that this had been
17		a long-term issue that healthcare unions had been
18		raising. I certainly remember a meeting where we had
19		officials from healthcare unions and that that was
20		a topic of the meeting, and that was the inference
21		I took from the discussion at the meeting that this was
22		not the first time it had been raised and that it was
23		a long-standing issue that had been raised in the past.
24	Q.	Something that had been raised by healthcare workers in
25		the past?
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1	Α.	Yes.	1	but you think, in terms of looking forward and with
2	Q.	But not something which the STUC had actually taken	2	a particular focus on healthcare workers, you think
3		an initiative and	3	there are particular lessons in that regard that we need
4	Α.	No, I'm not aware of the STUC itself, as the umbrella	4	to learn were there to be a future pandemic?
5		body, having raised it with government in the past, but	5	A. Yes. I mean, I think that overall, when we're looking
6		most of the detailed discussion around issues like that	6	at this, there was definitely serious failures by
7		would not have been a topic for the STUC to raise,	7	government and healthcare employers to be properly
8		because of the very well established partnership	8	prepared and give the adequate resources and support to
9		structures that existed between NHS Scotland and	9	workers on the frontline during the pandemic. That
10		healthcare unions, so that's an issue that I would have	10	ranged from, you know, the inadequate staffing levels
11		expected to be raised in those structures in the past.	11	that we talked about and the effects that were
12	Q.	Just finally on PPE, now, you also mentioned, I think,	12	compounded on staff as the pandemic progressed; the lack
13		particular concerns about the ambulance service, and you	13	of PPE, which we've covered quite comprehensively; the
14		talk about, in your witness statement, the concerns you	14	lack of mental health support for workers, as the
15		had about out-of-date PPE being used. Could you just	15	effects deepened, and the real trauma and burn-out that
16		elaborate a little bit on that.	16	was being experienced; the lack of appropriate resources
17	Α.	Yes. There was a case raised by the GMB Union,	17	for proper safety inspections and learning to take place
18		I believe, where there was a whistleblowing case, and	18	as the pandemic progressed.
19		they raised the issue that out-of-date PPE had been in	19	And I think that we need to remember that government
20		use and the dates had been covered up, so they made	20	and employers have a duty of care to protect the workers
21		a formal whistleblowing complaint in that regard. So	21	that work in our healthcare settings in a pandemic or
22		I'm aware that that did take place.	22	a serious high-risk situation like that, and we know
23	Q.	Just to summarise, you obviously have given a lot of	23	that the workers who worked in health and social care
24		evidence about a variety of different concerns that the	24	were disproportionately affected and, indeed, infected
25		STUC had, is there anything that we haven't touched on	25	during the pandemic, and people paid the ultimate price
1		with catastrophic effects on themselves and their	1	going forward and that these protections are in place so
2		families.	2	that this can never happen again.
3			~	
4		I referred to a report in the Scottish Inquiry from	3	MR FIREMAN: Thank you very much, and thank you very much
		Professor Phil Taylor, which stated that workers in	4	for that comprehensive summary.
5		Professor Phil Taylor, which stated that workers in health and social care were four times more likely to be	4 5	for that comprehensive summary. Those are my questions, I think there are some
5 6		Professor Phil Taylor, which stated that workers in health and social care were four times more likely to be exposed than workers in other industries and our own	4 5 6	for that comprehensive summary. Those are my questions, I think there are some others.
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5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. Q.	Professor Phil Taylor, which stated that workers in health and social care were four times more likely to be exposed than workers in other industries and our own affiliate, the HSCA's report Never Again, in 2022, stated that severe disease, ie Sorry, can you just slow down slightly Yeah, no problem. for the stenographer. Yeah, no problem. So the HCSA's report stated that severe diseases and what we're talking about here is hospitalisation or death from Covid was seven times more prevalent in healthcare workers. So I think that, given all of that, we really need to ensure, going forward, that these failings are addressed, we need to make sure that there's proper PPE guidance and support put in place for the future, we need to make sure that there is more effective reporting and enforcement of health and safety in high-risk areas, and we need to recognise Covid and Long Covid as occupational diseases	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	for that comprehensive summary. Those are my questions, I think there are some others. LADY HALLETT: Thank you, Mr Fireman. I think it's Ms Mitchell KC. I think you may remember Ms Mitchell. Questions from MS MITCHELL KC MS MITCHELL: Yes, indeed, I'm obliged, my Lady. We have asked Ms Foyer a few questions before. Ms Foyer, I act on behalf of Aamer Anwar & Company for the Scottish Covid Bereaved. You spoke in your evidence about well-trained staff who were able to complain in relation to PPE and suchlike. I'd like to ask you about the staff who weren't so well trained and, indeed, weren't trained for the purposes or the jobs that they were being asked to do. I don't need to have it up on screen but, at paragraph 29 of your statement, you raised this issue

	but you think, in terms of looking forward and with
	a particular focus on healthcare workers, you think
	there are particular lessons in that regard that we need
	to learn were there to be a future pandemic?
Α.	Yes. I mean, I think that overall, when we're looking
	at this, there was definitely serious failures by
	government and healthcare employers to be properly
	prepared and give the adequate resources and support to
	workers on the frontline during the pandemic. That
	ranged from, you know, the inadequate staffing levels
	that we talked about and the effects that were
	compounded on staff as the pandemic progressed; the lack
	of PPE, which we've covered quite comprehensively; the
	lack of mental health support for workers, as the
	effects deepened, and the real trauma and burn-out that
	was being experienced; the lack of appropriate resources
	for proper safety inspections and learning to take place
	as the pandemic progressed.
	And I think that we need to remember that government
	and employers have a duty of care to protect the workers
	that work in our healthcare settings in a pandemic or
	a serious high-risk situation like that, and we know
	that the workers who worked in health and social care
	were disproportionately affected and, indeed, infected
	during the pandemic, and people paid the ultimate price
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	going forward and that these protections are in place so
	that this can never happen again.
WR	FIREMAN: Thank you very much, and thank you very much
	for that comprehensive summary.
	Those are my questions, I think there are some
	others.
LAL	DY HALLETT: Thank you, Mr Fireman.
	I think it's Ms Mitchell KC. I think you may remember Ms Mitchell.
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	the purposes or the jobs that they were being asked to
	do.
	l don't need to have it up on screen but, at
	paragraph 29 of your statement, you raised this issue

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1		properly trained to do so.
2		My question is: did your body complain about this
3		direct to NHS management or the Scottish Government and,
4		if so, what response did you receive?
5	Α.	Thank you. I believe that was our affiliate, the GMB,
6		that submitted that report back to us, and my
7		understanding is that this is something that they had
8		been actively raising during the pandemic. I think if
9		you want, you know, more detail on exactly how that was
10		done, you would need to question them. But my
11		understanding is that that was an issue that was raised
12		and, you know, it had really deep effects on those
13		workers. They have members who suffered PTSD, you know,
14		as a result of some of the experiences. But it was
15		common practice during the pandemic that wards you
16		know, certain wards were closed, people were redeployed
17		because of the acute difficulties with staff going off
18		sick and staffing shortages. There were lots of areas
19		where staff were redeployed to areas that they weren't
20		well trained on and, you know, it's certainly not
21		an isolated occurrence.
22	MS	MITCHELL: Thank you.
23		My Lady, I've no more questions.
24	LA	DY HALLETT: Thank you very much, Ms Mitchell.
25		Thank you very much for your help again, Ms Foyer,
		61
1		team at NHS England as a result of that role?
2	Α.	l do.
3	Q.	Is it right that by background you are a general
4		registered nurse?
5	Α.	l am.
6	Q.	You have a postgraduate diploma in infection control
7		nursing and also a PhD in a specific infection
8		prevention and control matter?
9	Α.	l do.
10	Q.	From 2009, you were a nurse consultant in IPC, infection
11		prevention and control, in the Antimicrobial and
12		Healthcare Association Infection group, ARHAI, which was
13		then part of Health Protection Scotland, HPS; is that
14		right?
15	Α.	That's correct.
16	Q.	That Health Protection Scotland, HPS, latterly became
17		part of Public Health Scotland but not when you were
18		there?
19	Α.	Not when I was there, no.
20	Q.	Then you began your new role as Head of IPC at NHS
21		England in April 2020; is that right?
22	Α.	That's correct.
23	Q.	During this module's relevant period, that is March 2020
24		to June 2022, you were a member of various scientific
25		subgroups including NERVTAG, the UK IPC cell, which
		63

quir	y	16 September 2024
1		I'm very grateful to you.
2	THE	E WITNESS: Thank you.
3		(The witness withdrew)
4	LA	DY HALLETT: Right, Mr Fireman.
5		FIREMAN: Thank you. My Lady, may I please call Dr Lisa
6		Ritchie, who will be sworn.
7		DR LISA RITCHIE (sworn)
8		Questions from COUNSEL TO THE INQUIRY
9	LAI	DY HALLETT: I hope we haven't kept you waiting too long,
10		Dr Ritchie.
11	MR	FIREMAN: Dr Ritchie, can you please give your full name?
12	Α.	Lisa Ritchie.
13	Q.	Thank you. Dr Ritchie, you have given a witness
14	<b>_</b> .	statement to Module 3 dated 23 July 2024. That's
15		INQ000421939. Can I just check you have that accessible
16		should you need it?
17	Α.	l do.
18	Q.	Dr Ritchie, you are the National Deputy Director of
19	۰.	Infection Prevention and Control at NHS England; is that
20		correct?
21	Α.	That's correct.
22	Q.	Is that a role that was formerly referred to as Head of
23	۰.	Infection Prevention and Control at NHS England?
24	Α.	That's correct.
25	Q.	You have responsibility for leading the national IPC 62
1		we'll come to in a moment, and the Hospital Onset
2		Covid-19 Infection Working Group; is that correct?
3	Α.	That's correct.
4	Q.	As I said, the majority of your evidence is focused
5		around your role in the UK IPC cell, which you chaired
6		for a period, I believe, between June 2020 and the end
7		of March 2021; is that right?
8	Α.	To June 2021.
9	Q.	To June 2021?
10	Α.	A year.
11	Q.	Okay, for a year.
12		I'm going to ask you some questions about the IPC
13		cell but, before I do, my Lady, it's been said before
14		but it does bear repeating, that this witness was not
15		the only individual who was on the IPC cell. She acted
16		as the chair of the cell for a substantial period, which
17		the Inquiry is examining, and she's, as a result, one of
18		the most appropriate individuals for the Inquiry's
19		question but, of course, some of the time she may be
20		referring to decisions which were made collectively.
21		In fact, Dr Ritchie, if I could ask you to make
22		clear, where relevant, if you are speaking from a
23		personal opinion, a personal professional opinion, or

cell as a whole.

indeed the opinion which was reached from the UK IPC

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1	Α.	Okay.

- 2 Q. In terms of that cell, it formally started meeting,
- 3 I think, in early February 2020; is that right?
- 4 A. That's correct.
- 5 Q. Did it evolve from NHS England's own IPC cell, which was
  6 part of its emergency preparedness, resilience and
  7 response unit?
- 8 A. That's correct.
- 9 Q. It may have varied but how regularly did the UK IPC cell10 meet?
- 11 A. So when the NHS England IPC cell was stood up, which was
- 12 part of a number of cells under the emergency
- 13 preparedness and resilience for NHS England, I was not
- 14 working in NHS England at that time. So my predecessor,
- 15 who was the head of IPC, invited the other UK IPC leads
- 16 from Scotland, Northern Ireland and Wales to join the
- 17 IPC cell meeting of NHS England, and that evolved into
- 18 what became known as the UK IPC cell.
- 19 **Q.** Thank you, that's very helpful.
- 20 You summarised the purpose of the UK IPC cell as21 being to provide a UK-wide consensus on issues relating
- 22 it infection prevention and control and, of course, that
- 23 includes, perhaps most pertinently, the use of PPE?
- 24  $\,$  A. So the cell did not advise specifically on PPE, so the
- 25 role and purpose of the UK IPC cell and for NHS England 65
- 1 of key national organisations and understanding what the 2 governance, the decision-making processes and the 3 primary knowledge resources, evidence bodies and 4 guidance leads would have been invaluable. So, in 5 hindsight, it would have been very useful to have 6 understood or known what that structure was, and maybe 7 something for the future. 8 Q. We'll come to the structure of the cell in due course 9 but, before we do so, can I just ask you about the 10 members of the cell and who was represented on it. 11 You've listed them out in your witness statement at 12 paragraph 134, and they are NHS England, Public Health 13 England -- which then became the UKHSA -- Public Health 14 Wales, ARHAI Scotland, the Scottish HAI unit, the 15 Association of Ambulance Chief Executives and the 16 Department of Health and Social Care. 17 Can I clarify, was membership of the cell then 18 specific to those organisations, rather than to any 19 specific individuals? 20 Α. Yes. 21 Q. The Inquiry heard from Richard Brunt of the Health and 22 Safety Executive last week and he talked about having
- 23 a direct input to the cell. You didn't mention in your
- 24 witness statement them being a member of the cell. Is
- 25 it right they weren't actually attending cell meetings

- was to come together to agree consistency on infection
- 2 prevention and control guidance, so that we had
- 3 standardisation across the four nations. So that was
- 4 our purpose, to make sure that, when we were drafting
- 5 guidance, that that was aligned with WHO and the
- 6 scientific evidence that was emerging.
- 7 Q. You acknowledge, of course, though that PPE falls within8 infection prevention and control as a relevant issue?
- 9 A. It does indeed but it is one part of a very complex10 number of IPC measures.
- 11 Q. Just focusing, if we can, on the actual onset of having
- 12 an IPC cell in the first place, are you aware of whether
- 13 or not this featured in any specific pandemic planning
- 14 documents or, in fact, whether it was something that was
- 15 thought up as the emergency was convening? I appreciate
- 16 you've spoken about the way in which it developed, but
- 17 the actual necessity to convene a cell, was that
- 18 something that was always within pandemic planning or
- 19 was that just something that was put together as the
- 20 emergency was developing?
- A. I believe it evolved. It did evolve as the emergency
  developed. I mean, I think what would have made a real
- 23 difference to me, as a new start in NHS England on
- 24 1 April, would have been having a clear structure,
- 25 outlining the functions, the roles and responsibilities 66
- 1 but they did have direct lines of correspondence to 2 those who were on the UK IPC cell? 3 A. That's correct. So HSE was not a member of the UK IPC 4 cell but we did engage with HSE on many issues. **Q.** You were a member of the cell, both at Health Protection 5 6 Scotland, as a representative of Health Protection 7 Scotland, and then subsequently as a representative of 8 NHS England; is that right? 9 A. That's correct. 10 Q. One of the things that was mentioned by Dr Barry Jones 11 of the Covid Airborne Transmission Alliance on Thursday, 12 when he gave evidence, was he said there were more 13 members on several occasions attending the cells from 14 NHS England than any other organisation. Sometimes, 15 I think he said, there was up to 20. I don't know 16 whether or not that's accurate but, dealing with the 17 issue of why there may have been more members from NHS 18 England attending these cell, is it right that NHS
- 19 England bore the secretariat function for the cell and
- 20 would, therefore, have sometimes have had more members
- 21 attending to take notes, et cetera, or were there other
- 22 reasons why they may have had more members attending?
- 23 A. So because the UK IPC cell had evolved from what was the
- 24 NHS England IPC cell, we did continue -- we had the
- 25 infrastructure and we had that cell in place, so we

cell?

	continued to manage the cell in terms of doing	1	
	organising meetings and doing the minutes and action	2	
	notes from those meetings.	3	
	In terms of membership, from the representative	4	
	organisations, it was down to those other national	5	
	organisations to bring to the meeting who they wished to	6	
	represent their country, public health body, ARHAI	7	
	Scotland, from Public Health Wales, so there was no bar	8	
	from those organisations by the chair or anyone else	9	
	about who from those organisations could attend those	10	
	meetings.	11	
Q.	So it goes back to the point that we were speaking about	12	
	earlier that it was the organisations which were	13	
	represented on the cell, rather than specific	14	
	individuals?	15	
Α.	Correct.	16	
Q.	You could have sent many more individuals if you wanted	17	
	or much fewer?	18	
Α.	Indeed.	19	
Q.	Are you able to recall, and I appreciate that to some	20	
	extent you may not know in detail the qualifications of	21	
	absolutely everyone who attending every single cell	22	
	meeting, but are you able to recall whether or not there	23	
	were individuals from non-medical backgrounds or	24	
	non-clinical backgrounds, for example engineers or 69	25	
Q.	Professor Beggs told us that he considers that, in	1	
	professional infection prevention and control spheres,	2	
	there has been a bias towards focusing on	3	
	epidemiological evidence over considering what the	4	
	physical science may say and, as a result, a more narrow	5	
	picture has been obtained. So my first question is: do	6	
	you accept that criticism?	7	
Α.	No. I do think there has been a lot of studies now	8	
	being undertaken by physical scientists and others but	9	
	I think, from an IPC perspective, we would follow the	10	
	epidemiology and the scientific literature in terms of	11	
	the infection prevention and control guidance that we	12	
	would put together. So we would be taking the views of	13	
	our scientific experts, be that from SAGE, UKHSA, Public	14	

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Health England.

background?

probably nursing, I would say, more than medical, and I think that was appropriate for the function of the cell and the role and purpose of why we had been established, given the expertise that we had in infection prevention and control. We did not want to duplicate the efforts of other meetings, and we were aware that there were many meetings happening at the same time. For example, there was an engineering management group that was a subgroup of SAGE, and we would obviously look to the outputs of such groups and review what we could translate from the outputs of those meetings into the IPC guidance, if it was relevant. Q. I appreciate that you have said that it was appropriate, but the Inquiry heard last week from Professor Beggs who comes at things, I think, from a physical science perspective and it was his view that, in terms of the science associated with transmission of infectious diseases, there has been a bias towards epidemiological evidence over physical science. I don't know whether or not you agree with that at all or if you disagree. Perhaps I'll give you an opportunity to comment on that. A. Can you repeat the question again, sorry? 70 if they were a responder under that remit or within that structure. So I'm not saying that -- I think what I am saying is that the UK IPC cell evolved over time and the membership was specific to the role that we were carrying out, that it was infection control leads with the expertise in infection control that were pulling together the evidence, taking the outputs from SAGE, NERVTAG, translating a lot of the science into practical guidance for frontline staff. But, you know, if the

physicists or physical science experts who attended the

A. So, predominantly, the membership was clinical and

- membership is something that we need to review, there's
- always lessons to be learned.

13	Q.	Thank you.
14		The one area then I suppose that you would confirm
15		you were on top of, from the perspective of the
16		representatives of the UK IPC cell, was having direct
17		involvement in clinical work; is that right?
18	Α.	That's correct.
19	Q.	So there were members who were actually directly
20		involved in putting into practice the guidance that was
21		being formulated?
22	Α.	Yes.
23	Q.	Another issue that has been raised with the Inquiry is
24		that of stakeholder engagement. On reflection,

25 I appreciate you have been very candid about the 72

# 71

Q. So you don't think then, on reflection, that perhaps the

a physicist or an engineer or someone from that

cell would have benefited from having the expertise of

A. There's always room for improvement and, in terms of the

different backgrounds, maybe that is something for

organisations, it's how they're plugged in, I suppose,

it goes back to the structure, doesn't it, and how they

fit in under the Civil Contingencies Act, for example,

future, a lesson learned, that some of these

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1		potential benefits of physical science and engineering,
2		what about the fact that there were concerns from the
3		Royal College of Nursing and the British Medical
4		Association about them being engaged? On reflection do
5		you think there would be benefit for any future IPC
6		cell, if it was convened, to have a representative from
7		one of those union organisations attending?
8	Α.	It felt like there was a couple of questions in that.
9		I think, first of all, in terms of stakeholder
10		engagement, we were working at pace, we had I know
11		that, as individuals and collectively as an IPC cell, we
12		were seeking feedback and making ourselves available to
13		people to give that feedback. In terms of the updates
14		to the guidance, there were often times, where I would
15		make a phone call to RCN or to the Infection Prevention
16		Society or the president of other organisations to say
17		that we had to get this guidance out quickly but, if
18		I sent it over, would they have a look at it and come
19		back with any concerns. So we were working at pace so
20		it was often difficult to take stakeholder feedback.
21		When there was what we would consider major changes
22		to the guidance, so when we'd change the guidance for
23		remobilisation, when care pathways were brought in to
24		get the NHS back up and running and, equally, when we
25		were preparing winter guidance for 2020 to 2021, we did 73

1 Nursing, they felt like they were being managed and 2 pushed away. I presume that, based on what you've just 3 said about stakeholder engagement and the steps you did 4 take to consult, you would at least make clear that 5 wasn't your intention and, indeed, probably not what you 6 consider actually occurred; is that right? 7 Α. Absolutely and, if that was the perception, it couldn't 8 be further from the truth because we did want to get 9 feedback from people. But, as I say, when we were 10 pulling or drafting guidance and reviewing the evidence and updating we were working to very tight timelines. 11 12 All of these points are relevant, of course, because Q. 13 what I want to ask you is whether, in fact, you consider 14 the membership of the cell, as it was during the 15 pandemic, the Covid-19 pandemic, was sufficiently broad 16 to ensure that a range of expert opinion was brought to 17 the table; do you consider that was the case? 18 A. I do. 19 Q. One of the points which arises from review of the IPC 20 minutes is this concept of cell reaching a consensus. 21 Can you explain what the process was by which the cell 22 reached a consensus and then made a decision on how to 23 proceed? 24 Α.

- So it was, as chair -- when I was chair and as a member,
- 25 the decision-making did rely on consensus, it was

1		more formal consultation. So stakeholders were involved
2		in that process because we had a bit more time to get
3		the feedback and take their input.
4		I know that my Chief Nursing Officer and other
5		colleagues were out and about, you know, and they had
6		direct contact with the royal colleges, with very many
7		meetings, we put on lots of webinars
8	Q.	Can I just pause you there and just ask you about the
9		principal basis for my question, which was: what about
10		having a representative regularly attending the UK IPC
11		cell from the Royal College of Nursing or the BMA?
12	Α.	I think the challenge is the number of different
13		representatives from all of those various groups. So
14		I think it's important and, again, I think it goes back
15		to the structure, about setting that in place, about
16		what the consultation looks like, what is the
17		communication and engagement strategy and having
18		something like that proactively built in, rather than it
19		being something reactive. And I accept that, you know,
20		it wasn't always easy to take all of the feedback that
21		was coming from stakeholders, given the pace at what we
22		were working.
23	Q.	I think that then leads on to the criticism which the
24		Inquiry heard last week about the suggestion that, from
25		some of the members of the BMA and Royal College of
		74
1		ensuring that we had broad agreement among the members,
2		though not always unanimous, and we provided
3		recommendations to national governance bodies, to each
4		of the countries, for their final approval. So it was making sure that we had open discussion, as I say, that
5		
6		we came to a recommendation at the end of that which
7		would be broad agreement and those if there was any
8 9		doubt or we didn't feel that we had come together and reached consensus, then that would have been escalated
9 10		to senior clinical colleagues.
10	Q.	I sense from what you're saying then that there weren't
12	ખ.	actually formal votes taken during the meeting?
12	A.	No, there was not.
13	д. Q.	So then did it rely, essentially, on whoever was
14	હ.	chairing the meeting, in many of the instances you,
15		onaning the mooting, in many of the motanoes you,

- 16 getting a broad flavour of what the discussions were and 17 then summarising that as the consensus? 18 Α. Yes. 19 Q. If we can then look at one of these documents that's 20 relevant, which is the minutes of the IPC cell from 21 18 August 2021. 22 This is INQ000398186, and it's the third -- I think 23 it's the third page of that document, if it could come
- 24 up on screen, please, if possible. 25
  - But don't worry if not, I can just summarise what 76

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7

1		you say in it. In August you say that you were still
2		working with a consensus view, however escalation of any
3		disagreement may need to be included in the next terms
4		of reference.
5		So this is in August 2021, some time into the
6		pandemic, and it seems that still at this stage the
7		terms of reference and the lines of reporting were still
8		being ironed out; is that a fair summary?
9	Α.	I mean, we did review the terms of reference for the
10		duration of the cell. I mean, I think it's important to
11		say here that we could have been disbanded at any time.
12		The cell was given authority by others. We didn't have
13		a direct route to publication. The guidance could have
14		been pulled that we put out or the consensus decision
15		could have been pulled by any of the public health
16		bodies across the UK. And I'm sure our senior leaders
17		would have been clear about the decisions that we made,
18	_	whether they were right or wrong.
19	Q.	To be absolutely specific, I know you have mentioned
20		public health leaders but who would any disagreement or
21		ambiguity have been escalated to? Who were the
22		individuals or professionals who would have had
23		oversight of that?
24	A.	So the UK senior clinical leads.
25	Q.	In which departments? 77
1		been responsible for the reporting lines, but in
2		practice, was it the case that recommendations reached
3		at the UK IPC cell were routinely incorporated into
4	_	national guidance?
5	Α.	national guidance? That's correct.
5 6	A. Q.	national guidance? That's correct. The Inquiry has been provided with several of the UK IPC
5 6 7		national guidance? That's correct. The Inquiry has been provided with several of the UK IPC cell minutes, indeed I think all of them now, I think
5 6 7 8		national guidance? That's correct. The Inquiry has been provided with several of the UK IPC cell minutes, indeed I think all of them now, I think that's clear, but the minutes weren't actually
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- 24 to publish the UK IPC cell minutes?
- 25 A. During the relevant period, I don't recall.

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- A. In each of the four nations.
- 2 **Q.** In a related question, would that mean, then, that
  - Public Health England, for example, who published the
- 4 guidance on behalf of England, at least, would they have
- 5 had the ability to have come back to you on anything
- 6 that was agreed during the IPC cell minutes and, say,
  - objected to it or required an amendment to be made to
- 8 that piece of guidance that was proposed?
- 9 A. As a lead organisation for public health and infection
  10 control in England, they could have come back at any
- 11 point and made amendments.
- 12 **Q.** Would this still apply if Public Health England
- 13 themselves, who were obviously members of the IPC cell,
- 14 had not in fact agreed with the consensus view that was
- 15 reached at the IPC cell meetings?
- 16 **A.** Yes.
- 17  $\,$  Q. Can you recall any occasions on which, whether that be
- 18 the CMO within each nation, the CNO within each nation,
- 19 or public health bodies, actually came back and said
- 20 "You need to make a change to this guidance or we're not21 going to approve it in its current form"?
- 22 A. So I don't recall specifics, but I do recall
- conversations with Public Health England colleagues ondraft guidance content.
- 25 **Q.** In practice, then -- I appreciate that you may not have 78

1	Q.	Again, trying to take a forward-looking approach, do you
2		think there would be benefit in publishing these sorts
3		of minutes to allow for a dialogue of challenge to come
4		to the surface?
5	Α.	Yes, I mean, I think if publication of such minutes
6		would be helpful, it might be an area that requires to
7		be formalised across the four nations of the UK.
8	Q.	Thank you.
9		If we can now turn to some key principles of
10		infection prevention and control to try to establish
11		some of the things that you were looking at as a cell,
12		and considering. You've set out in your statement and
13		the Inquiry has heard about standard infection control
14		measures, and that's measures that I think are taken all
15		of the time for all healthcare workers regardless of the
16		threat that is being faced and regardless of the
17		transmission of any particular virus but to protect
18		against generally all threats; is that right?
19	Α.	That's correct.
20	Q.	We then have transmission-based precautions, and this is
21		relevant to the nature of the disease that you're trying
22		to protect against, isn't it?
23	Α.	Yep.
24	Q.	In order to properly protect against a virus, you need
25		to understand the way in which it's transmitted and

- 1 thereafter you need to prepare for and provide for the
- 2 relevant protections that will protect against the way
- 3 in which that virus is transmitted.
- 4 A. Correct.
- 5 Q. We've heard about, and you've set out in your statement,
- 6 the three established routes of transmission for
- 7 a respiratory virus: contact, droplet and aerosol.
- 8 Focusing if we can on droplet and aerosol, because those
- 9 are the two most pertinent here, you would agree,
- 10 I suspect, that there are differences in terms of the
- 11 precautions you need to take when protecting against
- 12 a virus spread via droplets and one which is
- 13 predominantly spread through aerosol transmission?
- 14 A. Yes, and it does support the -- the definition supports
  15 the IPC measures that would be put in place.
- 16 Q. I'm not sure -- sorry, would you clarify what you just17 said?
- 18 A. So, sorry, could you repeat the question?
- 19 Q. The question is a basic one really, it's just to
- 20 establish that there are differences between the way in
- 21 which you protect against a virus that is spread
- 22 predominantly by droplets and one which is spread
- 23 through aerosols?
- 24 A. That's correct.
- 25 Q. That's why we've heard about the differences between 81
- 1 kit or PPE.
- 2 Q. When dealing, of course, with a virus that's spread
- 3 through droplets?
- 4 A. Correct.
- 5  $\mathbf{Q}$ . In terms of the difference between the two modes of
- 6 transmission, aerosol and droplet, the Inquiry heard
- 7 last week about historically this having come down to
- 8 size of the particle. Of course we also heard that
- 9 larger droplets behave ballistically and fall to the
- 10 ground relatively quickly, whereas aerosols float and
- 11 remain in the air for a much longer period of time. Do
- 12 you agree with that summary?
- 13 **A.** Yes.

- 14 Q. Can we, please, have a look at your paragraph 49 of your15 witness statement.
- And this can come up on screen, it's paragraph 49,page 14.
  - You say this:
  - "It is my view that the distinction between
- 20 a respiratory aerosol and droplet in terms of size
- 21 (micrometres) is an academic consideration that cannot
- 22 be usefully applied in national guidance or by
- 23 healthcare workers in 'real' clinical environments."
- 24 And you then give your reasons for that, including
- 25 how difficult it is to measure a particle in practice.

- 1 fluid-resistant surgical masks and respirators, 2 respirators being necessary for aerosol protection and 3 surgical masks for droplet protection. You accept, I think, that FRSM, if I can use that 4 5 acronym, don't protect against aerosols, do they? 6 Α. No. 7 Q. We heard last week from Richard Brunt, who explained 8 that from the HSE's perspective, FRSMs aren't in fact 9 deemed to be PPE because they're not, if I can 10 summarise, personally protective; they are, I think, 11 source control or a medical device as far as he is 12 concerned, they're regulated by the MHRA. You say in 13 your witness statement, at paragraph 68 for reference, 14 that you do think that FRSMs are considered to be 15 a component of PPE. Can you accept that because of the 16 issue in terms of them not being approved by the HSE as 17 PPE that some may not consider FRSMs to be PPE? 18 FRSMs have been used in infection prevention and control Α. 19 in healthcare settings for a long, long time, and are 20 part of established guidelines nationally and 21 internationally, the WHO, communicable disease centres 22 in America, so as PPE they have been cited as part of 23 infection prevention and control precautions for many 24 years, in many guidance documents, so it's a well
- 25 established piece of infection prevention and control 82
- 1 A. Yeah. Q. Can I just try to clarify what you're actually saying 2 3 here. You aren't suggesting, are you, that in fact 4 a healthcare worker would need to take a moment to try 5 to assess the exact size of a particle that's just been 6 emitted, because of course that would be impractical, 7 but it is the case, is it not, that it's important that 8 those who set the guidance understand the difference between the size of particles, because that then informs 9 10 the guidance that you set? 11 A. Correct, yeah. 12 Q. So when you say academic distinction, it's not fair, is 13 it, to call it simply academic, because the 14 understanding is directly relevant to the guidance 15 that's then used in practice? A. I think I was meaning academic in the sense that 16 17 research that is done in laboratory conditions or in 18 academic institutions then has to be translated into 19 practicable IPC guidance. So understanding a cut-off 20 point is helpful, and having a definition, again, which 21 has been long established in infection prevention and 22 control guidelines, be it contact, droplet or airborne 23 transmission, have been the known and established IPC 24 transmission measures that have been in the guidance for 25 many -- a long time.
  - 84

1	Q.	So you do accept that there is a use to it; you're	1		terms and consider how this was then translated into
2		drawing a distinction between the scenarios in which	2		healthcare worker infection prevention and control
3		it's useful?	3		guidance.
4	A.	Yes.	4		If we could go to INQ000251675.
5	Q.	Okay. Professor Beggs gave evidence last week about the	5		This is a passage from some of the guidance, this is
6		size of microns that he considers to be aerosols and	6		page 13 and 14, it should come up on screen soon. Yes,
7		that he considers to be droplets, and the cut-off point	7		here we go.
8		that he gave was 100 microns: he says anything less than	8		If you look at the bottom part of that, it says
9		100 microns is an aerosol and anything above that is	9		"Droplet precautions" and it says:
10		a large droplet.	10		"Used to prevent and control infection transmission
11		I suspect you don't necessarily agree with that. Is	11		over short distances via droplets"
12		that right?	12		And there it says above 5 microns.
13	Α.	I respect that that is Professor Beggs' opinion. I am	13		So just to clarify, this guidance, is this likely to
14	_	not a physical scientist.	14		have been something that was formulated or agreed upon
15	Q.	So you aren't in a position to say what your view is on	15		in an IPC cell meeting?
16		the size of particles and the distinction between	16	Α.	
17		aerosols and droplets?	17	Q.	5
18	Α.	I think the distinction that I would say is that	18		adapted from the pandemic influenza guidance?
19		airborne transmission occurs by small droplets, aerosols	19	Α.	
20		are particles that remain suspended in the air and that	20		an advisory group to the WHO, came up with these routes
21		the airborne transport of those particles may carry	21		of transmission, contact, droplet and airborne
22		pathogens long distances, unlike a droplet, which	22		transmission, and they described these droplet sizes.
23		involves larger size droplets that requires closer	23	Q.	Those droplet sizes as they were described all the way
24		contact for transmission to happen.	24		back then have maintained and made their way into
25	Q.	It might be helpful if we look at this in practical 85	25		infection prevention and control guidance, including the 86
1		guidance that was issued during the pandemic?	1		issue, as a result of different spheres using different
2	Α.	That's correct.	2		cut-off sizes, and he says:
3	Q.	So it is the case, isn't it, that, for the purposes of	3		"One of the unintended consequences of the
4		the guidance that was issued during the pandemic, the	4		inappropriate [that's his words] 5-micron threshold, was
5		cut-off point was deemed to be 5 microns, which is	5		that scientists from completely different disciplines
6		obviously markedly different to the cut-off point that	6		used completely different terms to describe the same
7		Professor Beggs uses?	7		objects. So, for example a 23-micron diameter
8	Α.	Indeed.	8		respiratory particle might be called a droplet by
9	LA	<b>DY HALLETT:</b> Can I just ask you a question, Dr Ritchie.	9		clinicians and microbiologists, whereas the same object
10		Things that are well established aren't necessarily	10		would be an aerosol particle to an engineer or
11		always right. Science moves on, understanding moves on.	11		physicist."
12		Were you aware of any debate about the size of droplets	12		So is that, Dr Ritchie, the nub of the distinction
13		and whether the science had moved on or understanding	13		between the two disciplines and, indeed, a potential
14		had moved on?	14		cause of concern where you have the established science
14					
15	Α.	I think as we came through the pandemic, those	15		as it was, in the infection prevention and control
	Α.	I think as we came through the pandemic, those discussions were taking place and scientific individuals			as it was, in the infection prevention and control guidance and, in fact, another reasonable body of
15	Α.		15		
15 16	Α.	discussions were taking place and scientific individuals	15 16		guidance and, in fact, another reasonable body of
15 16 17		discussions were taking place and scientific individuals were putting those cases forward. At the beginning of	15 16 17		guidance and, in fact, another reasonable body of scientific evidence that says, in fact, you're
15 16 17 18		discussions were taking place and scientific individuals were putting those cases forward. At the beginning of the pandemic that wasn't the case.	15 16 17 18		guidance and, in fact, another reasonable body of scientific evidence that says, in fact, you're describing these particles in the wrong way and, as
15 16 17 18 19		discussions were taking place and scientific individuals were putting those cases forward. At the beginning of the pandemic that wasn't the case. FIREMAN: I suppose, thinking about it in practical	15 16 17 18 19	А.	guidance and, in fact, another reasonable body of scientific evidence that says, in fact, you're describing these particles in the wrong way and, as a result of that, you're devising infection prevention
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### **UK Covid-19 Inquiry**

1		possible I'm talking about airborne generating	1		recognised as being predominant, do you know on what
2		procedures that airborne spread is possible,	2		basis you're saying that with respect to particle sizes,
3		particularly in crowded and ventilated settings. But	3		or are you not able to say that?
4		the epidemiology and the scientific literature did not	4	A	I'm probably not able to say that in terms of particle
5		support that airborne spread as the predominant mode of	5		sizes but, in terms of the epidemiology and the
6		transmission and, indeed, the WHO guidance has not	6		scientific literature, and the outputs from those
7		stated a change in a predominant mode of transmission	7		scientific groups that we were taking advice from.
8		for SARS-CoV-2.	8	G	<b>1.</b> I suppose, trying to follow this up, then, just to tie
9	Q.	But is that using the 5-micron cut-off or the 100-micron	9		things up, those scientific groups that you were taking
10		cut-off?	10		advice from, saying that airborne transmission was not
11	Α.	The WHO have recently looked at and published revised	11		a significant threat, were they doing so on the basis of
12		terminology for respiratory viruses and that still	12		a 5-micron cut-off; do you know that?
13		I don't think they've spoken about a continuum now,	13	A	. I don't know that.
14		as I've just said, and the cut-off, I think, is part of	14	L	ADY HALLETT: Sorry, can I just make sure I've understood.
15		a risk assessment.	15		I thought you said, just a moment or two ago, that the
16	Q.	Okay, I'm just struggling to follow because I think,	16		World Health Organisation has not even now said that
17		ultimately, the question would be: it could have been	17		aerosol transmission is the most dominant route; is that
18		that both you and Professor Beggs agreed entirely on the	18		what you said?
19		size of the particles that were causing the infection,	19	A	A. Yes.
20		you both look at a 12-micron particle, but he says	20		ADY HALLETT: I thought they had.
21		that's aerosol transmission and you say it's droplet	21		. They haven't changed their guidance
22		transmission and, as a result, you say airborne	22		IR FIREMAN: My Lady, I'm not sure if they said "most
23		transmission is not predominant because we've got	23		dominant" or if they've just acknowledged it as a route.
24		12-micron particles which are droplets.	24		Do you know the answer to that, Dr Ritchie?
25		When you say that airborne transmission has not been	25	A	-
		89			90
4		that its the modernin and mode of the newsianian	4		
1		that it's the predominant mode of transmission.	1		Could you repeat the question, sorry?
2		DY HALLETT: Thank you, I had misunderstood.	2	6	I think you said that you accept that there are multiple     routes of transmission, sixteered use possible, there's
3			3		routes of transmission, airborne was possible, there's
4	LA	DY HALLETT: Thank you. No, it's my fault,	4		a spectrum of different ways in which a virus can
5		I misunderstood.	5		transmit, if I'm summarising what you said, I think.
6	MR	<b>FIREMAN:</b> I suppose this leads on to a point you make in	6	A	A. Yeah.
7		your witness statement, which is that you say that the	7	C	. So I suppose what I'm asking you is when did you reach
8		established modes of transmission as defined before the	8		the conclusion that that was, in fact, the appropriate
9		pandemic, ie with specific infectious particle cut-off	9		way to assess the risk?
10		sizes, is, in fact, not as delineated as first thought	10	Α	
11		prior to the pandemic.	11		were not seemed or deemed to be helpful within clinical
12		I suppose, first of all: what do you mean by that?	12		guidelines and that the awareness of airborne
13	Α.	So I again accept that airborne spread is possible and	13		transmission became more apparent
14		I think what we learned through the pandemic was that,	14	C	
15		rather than these distinct cut-offs, that there was more	15	A	
16		of a spectrum of airborne spread was possible.	16	C	
17		So having distinct cut-offs probably now is not	17	_	2020 to June 2022 or after it?
18		a helpful thing to have, and I think there's been many	18	A	
19		reports of nosocomial infection, like hospital	19	C	
20		infections, where other routes of transmission can't be	20		understanding that things are perhaps more nuanced than
21	_	ruled out.	21		was previously considered to be the case, and that in
22	Q.	That can come down, that document.	22		fact there's a spectrum, does that not reinforce the
23		I suppose there are two questions which arise from	23		need to protect against a variety of different modes of

- need to protect against a variety of different modes of 23
- 24 transmission and perhaps be more precautionary and

25 protect against all of them at once, rather than just be 92

#### view you've come to now, when did you come to that view? 91

that. The first is: if that is the case and that's the

24

1	specific and say "This is the way in which it was	1
2	transmitted"?	2
3	A. Indeed.	3
4	MR FIREMAN: Thank you.	4
5	My Lady, I don't know if that's an appropriate time.	5
6	LADY HALLETT: Yes, certainly. I shall return at I hope	6
7	you were warned that we would be taking a lunch break.	7
8	Thank you, I shall return at 2 o'clock.	8
9	(1.00 pm)	9
10	(The short adjournment)	10
11	(2.00 pm)	11
12	LADY HALLETT: Mr Fireman.	12
13	MR FIREMAN: Thank you.	13
14	Dr Ritchie, I want to, before I actually begin,	14
15	I just need to make one point of clarification. Prior	15
16	to starting earlier on I referred to a document	16
17	INQ000 well, in fact, I'm going to give you the	17
18	correct reference for the document I should have	18
19	referred to. I can't remember the wrong one because	19
20	I don't know which one I did refer to incorrectly, but	20
21	I can tell you	21
22	LADY HALLETT: You're getting confused here, Mr Fireman.	22
23	<b>MR FIREMAN:</b> I got confused. The correct one is	23
24	INQ000398180, and if just for formalities we could have	24
25	that on the screen for a second or two and then take it	25
	93	
1	an HCID, the categorisation of airborne encompasses both	1
2	respiratory droplets or droplets, let's use droplets for	2
3	the sake of clarity, and aerosols?	3
4	A. That's correct.	4
5	Q. Do modes of transmission, other than in the way you've	5
6	just described in terms of distinguishing between	6
7	whether something is an airborne or a contact HCID, have	7
8	any bearing on the fact that something is designated as	8
9	an HCID?	9
10	A. So the mode of transmission of an HCID classification	10
11	does not differentiate between transmission modes.	11
12	<b>Q.</b> Put another way, then, just trying to clarify this, are	12
13	the implications from an infection prevention and	13
14	control perspective, in terms of the requirement to wear	14
15	respiratory protective equipment and I think using	15
16	negative pressure rooms, the same if you're dealing with	16
17	a contact HCID and an airborne HCID?	17
18	A. That's correct.	18
19	<b>Q.</b> So in January and until March 2020, because of the fact	19
20	that Covid was designated as an HCID, it was	20
21	a requirement for all healthcare workers to wear	21
22	respiratory protective equipment and also to be dealt	22
23	with in negative pressure rooms; is that correct?	23
24	A. That's correct.	24
25	<b>Q.</b> The decision was then taken to declassify Covid as 95	25

quir	У	16 September 2024
1		down and it will be corrected for the purposes of
2		recording it. Thank you.
3		Turning then back to your evidence, Dr Ritchie,
4		I want to deal with the issue of the role of
5		high-consequence infectious diseases, HCID, and the
6		classification as an HCID, and how that plays a part in
7		infection prevention and control, if it does at all, and
8		how it in fact did play a part during the early part of
9		the pandemic.
10		So, starting point, it's right, and I think you
11		acknowledge, in January 2020 Covid-19 was designated as
12		an HCID, if I can use that acronym?
13	Α.	That's correct.
14	Q.	Generally, is it right that HCIDs are divided into two
14	ω.	categories, contact and airborne?
16	A.	That's correct.
17	<u>д</u> .	What is the difference between a contact and an airborne
18	ω.	HCID?
10	A.	So the difference is how they are transmitted. So
20	А.	a contact HCID spreads primarily through direct contact
20 21		with an infected person, their bodily fluids, tissues or
21		contaminated materials. An airborne HCID spreads via
22		respiratory droplets and aerosols and may also involve
23 24		contact routes.
24 25	Q.	So the key point there is that in the context of
20	પ્ય.	94
1		an HCID and, following that, is it right that the
2		stringent requirements about how to deal with the virus,
3		because of the fact it was designated in such a way,
4		fell away and there was no need to at that point
5		necessarily to deal with what actually happened, but
6		once it was not categorised as an HCID those
7		requirements were not you didn't need to abide by
8		those requirements necessarily?
9	Α.	That's right. So when something is classified or
10		a pathogen is classified as a high-consequence
11		infectious disease, be it contact or be it airborne,
12		there is one PPE kit ensemble, as we refer to it, that
13		includes a respiratory sorry, which includes an FFP3
14		respirator, RPE, so it does not matter how that HCID is
15		classified, the PPE ensemble or kit is exactly the same
16		for both contact and airborne.
17	Q.	So it may well have been, and it may be that your
18		evidence is that this is the case, that whilst Covid was
19		designated as an airborne HCID, it was not thought
20		necessarily that it was airborne but it may have been
21		thought that it was spread by droplets, and as a result,
22		because it was an HCID, it was designated as an airborne
23		HCID and requirements to wear respirators applied?
24	Α.	Correct.
25	Q.	On reflection, I think you recognised that this is 96

1		an area where there is quite a great deal of soone for	1		and do you think that it is important that definitions
1		an area where there is quite a great deal of scope for	1		and do you think that it is important that definitions
2		confusion, isn't there?	2		of these terms can be clarified in a way that it is
3	A.	Indeed.	3		clear, without any ambiguity, what each of them refer
4	Q.	There are a number of terms that are used in different	4		to?
5		contexts which, from a layperson's perspective, seem	5	Α.	Yeah. I think there's definitely scope to be clear on
6		very similar. I can mention some of them. Is it right	6		definitions and what they mean. It's really important
7		that in this context, of course, airborne means both	7		that we make things clear to our frontline healthcare
8		droplet and aerosol, but in other circumstances airborne	8		workers so they know exactly what to do and that we are
9		is essentially synonymous with aerosol?	9		speaking a common language which when we talk about
10	Α.	Correct.	10		different terms that people understand exactly what
11	Q.	It's also right that there is a term used to describe	11		we're talking about.
12		an aerosol that's often used I think scientifically but	12		The work that NHS England is looking at currently is
13		also in clinical circles as droplet nuclei?	13		almost going back to the history in a way of how did we
14	Α.	That's	14		end up with those three contact those three
15	Q.	That refers to an aerosol, doesn't it?	15		definitions of contact, droplet and airborne, and just
16	Α.	It does.	16		bringing that information forwards and understanding the
17	Q.	Not a droplet?	17		terminology. We have had a publication more recently
18	Α.	No.	18		from the WHO, who have looked at terminology and again
19	Q.	You recognise quite clearly then that there is, without	19		have given some different terms to describe contact,
20		even going to the detail, immediately a challenge in	20		what effectively would have been droplet and airborne,
21		understanding what's being spoken about, given the way	21		both short and long range.
22		in which these terms are referred to?	22	Q.	So is that something that you think the WHO are doing
23	Α.	Yes.	23	-	and that should then be adopted worldwide, or is it
24		And is it right that NHS England has looked to undertake	24		something which you think we within the UK can define
25	ч.	some work to try to assist with clarifying these things,	25		ourselves and ensure that is consistent nationally?
20		97	20		98
1	A.	I do think it is important to have some if the WHO	1		INQ000130561, and I want to go to page 5 in particular,
2	A.	have made those inroads, and I know that the work they	2		please.
2 3	А.	have made those inroads, and I know that the work they have recently done in the publication and the	2 3		please. So this is an article as I said, you were one of
2 3 4	Α.	have made those inroads, and I know that the work they have recently done in the publication and the terminology that they've looked at has included some	2 3 4		please. So this is an article as I said, you were one of several authors too. We can see that this is a table
2 3	Α.	have made those inroads, and I know that the work they have recently done in the publication and the terminology that they've looked at has included some professionals from the UK, so it is a global document	2 3		please. So this is an article as I said, you were one of several authors too. We can see that this is a table which has various different viruses. In the middle
2 3 4	Α.	have made those inroads, and I know that the work they have recently done in the publication and the terminology that they've looked at has included some	2 3 4		please. So this is an article as I said, you were one of several authors too. We can see that this is a table
2 3 4 5	Α.	have made those inroads, and I know that the work they have recently done in the publication and the terminology that they've looked at has included some professionals from the UK, so it is a global document	2 3 4 5		please. So this is an article as I said, you were one of several authors too. We can see that this is a table which has various different viruses. In the middle
2 3 4 5 6	Α.	have made those inroads, and I know that the work they have recently done in the publication and the terminology that they've looked at has included some professionals from the UK, so it is a global document that they have looked at and come up with terms, and	2 3 4 5 6		please. So this is an article as I said, you were one of several authors too. We can see that this is a table which has various different viruses. In the middle there is "Main route of transmission" and then further
2 3 4 5 6 7	Α.	have made those inroads, and I know that the work they have recently done in the publication and the terminology that they've looked at has included some professionals from the UK, so it is a global document that they have looked at and come up with terms, and I do think it's important going forward that	2 3 4 5 6 7		please. So this is an article as I said, you were one of several authors too. We can see that this is a table which has various different viruses. In the middle there is "Main route of transmission" and then further along we have "Respiratory personal protective equipment
2 3 4 5 6 7 8	Α.	have made those inroads, and I know that the work they have recently done in the publication and the terminology that they've looked at has included some professionals from the UK, so it is a global document that they have looked at and come up with terms, and I do think it's important going forward that international and national guidelines are aligned, and	2 3 4 5 6 7 8		please. So this is an article as I said, you were one of several authors too. We can see that this is a table which has various different viruses. In the middle there is "Main route of transmission" and then further along we have "Respiratory personal protective equipment for healthcare workers" and "[FFP] required". We can
2 3 4 5 6 7 8 9		have made those inroads, and I know that the work they have recently done in the publication and the terminology that they've looked at has included some professionals from the UK, so it is a global document that they have looked at and come up with terms, and I do think it's important going forward that international and national guidelines are aligned, and we did aim to do that throughout the duration of the	2 3 4 5 6 7 8 9		please. So this is an article as I said, you were one of several authors too. We can see that this is a table which has various different viruses. In the middle there is "Main route of transmission" and then further along we have "Respiratory personal protective equipment for healthcare workers" and "[FFP] required". We can see first of all, with tuberculosis, it's described as
2 3 4 5 6 7 8 9 10		have made those inroads, and I know that the work they have recently done in the publication and the terminology that they've looked at has included some professionals from the UK, so it is a global document that they have looked at and come up with terms, and I do think it's important going forward that international and national guidelines are aligned, and we did aim to do that throughout the duration of the pandemic.	2 3 4 5 6 7 8 9 10		please. So this is an article as I said, you were one of several authors too. We can see that this is a table which has various different viruses. In the middle there is "Main route of transmission" and then further along we have "Respiratory personal protective equipment for healthcare workers" and "[FFP] required". We can see first of all, with tuberculosis, it's described as "Aerosol" under "Main route of transmission". And then
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2 3 4 5 6 7 8 9 10 11 12		have made those inroads, and I know that the work they have recently done in the publication and the terminology that they've looked at has included some professionals from the UK, so it is a global document that they have looked at and come up with terms, and I do think it's important going forward that international and national guidelines are aligned, and we did aim to do that throughout the duration of the pandemic. At the outset of the pandemic, once Covid was no longer designated as a high-consequence infectious disease	2 3 4 5 6 7 8 9 10 11 12		please. So this is an article as I said, you were one of several authors too. We can see that this is a table which has various different viruses. In the middle there is "Main route of transmission" and then further along we have "Respiratory personal protective equipment for healthcare workers" and "[FFP] required". We can see first of all, with tuberculosis, it's described as "Aerosol" under "Main route of transmission". And then we have "FFP3 required" and then it has a tick there and some language underneath that some text underneath
2 3 4 5 6 7 8 9 10 11 12 13		have made those inroads, and I know that the work they have recently done in the publication and the terminology that they've looked at has included some professionals from the UK, so it is a global document that they have looked at and come up with terms, and I do think it's important going forward that international and national guidelines are aligned, and we did aim to do that throughout the duration of the pandemic. At the outset of the pandemic, once Covid was no longer designated as a high-consequence infectious disease (HCID), is it right that the starting point for	2 3 4 5 6 7 8 9 10 11 12 13		please. So this is an article as I said, you were one of several authors too. We can see that this is a table which has various different viruses. In the middle there is "Main route of transmission" and then further along we have "Respiratory personal protective equipment for healthcare workers" and "[FFP] required". We can see first of all, with tuberculosis, it's described as "Aerosol" under "Main route of transmission". And then we have "FFP3 required" and then it has a tick there and some language underneath that some text underneath that, sorry.
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q.	have made those inroads, and I know that the work they have recently done in the publication and the terminology that they've looked at has included some professionals from the UK, so it is a global document that they have looked at and come up with terms, and I do think it's important going forward that international and national guidelines are aligned, and we did aim to do that throughout the duration of the pandemic. At the outset of the pandemic, once Covid was no longer designated as a high-consequence infectious disease (HCID), is it right that the starting point for understanding likely modes of transmission of the virus SARS-CoV-2 was what was known about SARS-CoV-1? In other words, what was known about Covid was informed by what was known about SARS; is that right? That would be correct. In 2013, do you recall that you co-authored a paper alongside some other medical experts including	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18		please. So this is an article as I said, you were one of several authors too. We can see that this is a table which has various different viruses. In the middle there is "Main route of transmission" and then further along we have "Respiratory personal protective equipment for healthcare workers" and "[FFP] required". We can see first of all, with tuberculosis, it's described as "Aerosol" under "Main route of transmission". And then we have "FFP3 required" and then it has a tick there and some language underneath that some text underneath that, sorry. If we look at SARS coronavirus, that's SARS, it describes main route of transmission for SARS as "Droplet/aerosol", and in terms of "Respiratory personal protective equipment", it says "(recommended to be worn until patient is no longer considered infectious)" with a tick next to it. Given that SARS was the starting point in terms of
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q.	have made those inroads, and I know that the work they have recently done in the publication and the terminology that they've looked at has included some professionals from the UK, so it is a global document that they have looked at and come up with terms, and I do think it's important going forward that international and national guidelines are aligned, and we did aim to do that throughout the duration of the pandemic. At the outset of the pandemic, once Covid was no longer designated as a high-consequence infectious disease (HCID), is it right that the starting point for understanding likely modes of transmission of the virus SARS-CoV-2 was what was known about SARS-CoV-1? In other words, what was known about Covid was informed by what was known about SARS; is that right? That would be correct. In 2013, do you recall that you co-authored a paper alongside some other medical experts including Sir Jonathan Van-Tam, who was the Deputy CMO for part of this relevant period, and that paper was aimed at giving guidance to healthcare workers on how to protect against	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23		please. So this is an article as I said, you were one of several authors too. We can see that this is a table which has various different viruses. In the middle there is "Main route of transmission" and then further along we have "Respiratory personal protective equipment for healthcare workers" and "[FFP] required". We can see first of all, with tuberculosis, it's described as "Aerosol" under "Main route of transmission". And then we have "FFP3 required" and then it has a tick there and some language underneath that some text underneath that, sorry. If we look at SARS coronavirus, that's SARS, it describes main route of transmission for SARS as "Droplet/aerosol", and in terms of "Respiratory personal protective equipment", it says "(recommended to be worn until patient is no longer considered infectious)" with a tick next to it. Given that SARS was the starting point in terms of informing the way in which Covid was to be protected against, and SARS was described as "Droplet/aerosol", and indeed recommended that an FFP3 be required when
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q.	have made those inroads, and I know that the work they have recently done in the publication and the terminology that they've looked at has included some professionals from the UK, so it is a global document that they have looked at and come up with terms, and I do think it's important going forward that international and national guidelines are aligned, and we did aim to do that throughout the duration of the pandemic. At the outset of the pandemic, once Covid was no longer designated as a high-consequence infectious disease (HCID), is it right that the starting point for understanding likely modes of transmission of the virus SARS-CoV-2 was what was known about SARS-CoV-1? In other words, what was known about Covid was informed by what was known about SARS; is that right? That would be correct. In 2013, do you recall that you co-authored a paper alongside some other medical experts including Sir Jonathan Van-Tam, who was the Deputy CMO for part of this relevant period, and that paper was aimed at giving	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22		please. So this is an article as I said, you were one of several authors too. We can see that this is a table which has various different viruses. In the middle there is "Main route of transmission" and then further along we have "Respiratory personal protective equipment for healthcare workers" and "[FFP] required". We can see first of all, with tuberculosis, it's described as "Aerosol" under "Main route of transmission". And then we have "FFP3 required" and then it has a tick there and some language underneath that some text underneath that, sorry. If we look at SARS coronavirus, that's SARS, it describes main route of transmission for SARS as "Droplet/aerosol", and in terms of "Respiratory personal protective equipment", it says "(recommended to be worn until patient is no longer considered infectious)" with a tick next to it. Given that SARS was the starting point in terms of informing the way in which Covid was to be protected against, and SARS was described as "Droplet/aerosol",

1		despite the fact they were so similar?
2	Α.	So the SARS-CoV-1 which would have been the SARS
3		outbreak in 2003 and I think you're correct in saying
4		that the principle of this paper was to help guide
5		personal protective equipment and particularly
6		respiratory and facial protection, what it didn't do was
7		specifically look at individual pathogens, but
8		SARS-CoV-1 that in the 2003 outbreak was
9		predominantly found to be spread by droplet contact with
10		the potential that it could be airborne, but it was
11		never confirmed that that was the predominant route of
12		transmission for SARS-CoV-1.
13	LA	DY HALLETT: Sorry, I don't think that's answered
14		Mr Fireman's question.
15	Α.	Sorry.
16	LA	<b>DY HALLETT:</b> Well, if SARS-1 was meant to be guiding you,
17		why didn't it?
18	Α.	Because this paper wasn't specifically targeted towards
19		SARS-CoV-2, so this was a paper that was written
20		ten years ago, and SARS Coronavirus 1, I think they did
21		guide us in terms of droplet contact with the potential
22		to be airborne transmitted, so it did guide us in that
23		way.
24	MR	<b>FIREMAN:</b> The guidance said on its face that it in
25		fact within the context of the guidance it specifically
		101
1	Α.	
2	A. Q.	So was that what guided you? Or not you. When I'm
2 3		So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should
2 3 4		So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance,
2 3 4 5		So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact
2 3 4 5 6		So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people,
2 3 4 5 6 7	Q.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS?
2 3 4 5 6 7 8	Q. A.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you
2 3 4 5 6 7 8 9	Q.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who
2 3 4 5 6 7 8 9 10	Q. A.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended
2 3 4 5 6 7 8 9 10 11	Q. A.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended that airborne precautions be taken against SARS than
2 3 4 5 6 7 8 9 10 11 12	Q. A. Q.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended that airborne precautions be taken against SARS than with respect to Covid?
2 3 4 5 6 7 8 9 10 11 12 13	Q. A.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended that airborne precautions be taken against SARS than with respect to Covid? So part of the declassification so more information
2 3 4 5 6 7 8 9 10 11 12 13 14	Q. A. Q.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended that airborne precautions be taken against SARS than with respect to Covid? So part of the declassification so more information was coming out with regards to how SARS-CoV-2 was being
2 3 4 5 6 7 8 9 10 11 12 13 14 15	Q. A. Q.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended that airborne precautions be taken against SARS than with respect to Covid? So part of the declassification so more information was coming out with regards to how SARS-CoV-2 was being transmitted and, with that information, we were using
2 3 4 5 6 7 8 9 10 11 12 13 14	Q. A. Q.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended that airborne precautions be taken against SARS than with respect to Covid? So part of the declassification so more information was coming out with regards to how SARS-CoV-2 was being transmitted and, with that information, we were using that from NERVTAG, from SAGE, the bodies who were
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q. A. Q.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended that airborne precautions be taken against SARS than with respect to Covid? So part of the declassification so more information was coming out with regards to how SARS-CoV-2 was being transmitted and, with that information, we were using that from NERVTAG, from SAGE, the bodies who were looking at the science, to inform or translate that
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. A. Q.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended that airborne precautions be taken against SARS than with respect to Covid? So part of the declassification so more information was coming out with regards to how SARS-CoV-2 was being transmitted and, with that information, we were using that from NERVTAG, from SAGE, the bodies who were looking at the science, to inform or translate that science in what would be infection prevention and control guidance.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Q. A. Q.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended that airborne precautions be taken against SARS than with respect to Covid? So part of the declassification so more information was coming out with regards to how SARS-CoV-2 was being transmitted and, with that information, we were using that from NERVTAG, from SAGE, the bodies who were looking at the science, to inform or translate that science in what would be infection prevention and control guidance.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. A. Q.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended that airborne precautions be taken against SARS than with respect to Covid? So part of the declassification so more information was coming out with regards to how SARS-CoV-2 was being transmitted and, with that information, we were using that from NERVTAG, from SAGE, the bodies who were looking at the science, to inform or translate that science in what would be infection prevention and control guidance. Sorry, just because I think this is important, I'm
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. A. Q.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended that airborne precautions be taken against SARS than with respect to Covid? So part of the declassification so more information was coming out with regards to how SARS-CoV-2 was being transmitted and, with that information, we were using that from NERVTAG, from SAGE, the bodies who were looking at the science, to inform or translate that science in what would be infection prevention and control guidance. Sorry, just because I think this is important, I'm trying to understand from what you're saying whether or
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. A. Q.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended that airborne precautions be taken against SARS than with respect to Covid? So part of the declassification so more information was coming out with regards to how SARS-CoV-2 was being transmitted and, with that information, we were using that from NERVTAG, from SAGE, the bodies who were looking at the science, to inform or translate that science in what would be infection prevention and control guidance. Sorry, just because I think this is important, I'm trying to understand from what you're saying whether or not, in fact, you did look at SARS to inform the way in
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. A. Q.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended that airborne precautions be taken against SARS than with respect to Covid? So part of the declassification so more information was coming out with regards to how SARS-CoV-2 was being transmitted and, with that information, we were using that from NERVTAG, from SAGE, the bodies who were looking at the science, to inform or translate that science in what would be infection prevention and control guidance. Sorry, just because I think this is important, I'm trying to understand from what you're saying whether or not, in fact, you did look at SARS to inform the way in which you dealt with Covid but, in fact, you thought
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. A. Q.	So was that what guided you? Or not you. When I'm saying "you" here, I don't mean you personally, I should be clear. Was that what you think guided the guidance, or guided those who were making the guidance, the fact that Covid wasn't going to kill as many people, proportionately, of those who were infected as SARS? Sorry, could you Was the fact that a higher proportion of people who catch SARS die part of the reason that you recommended that airborne precautions be taken against SARS than with respect to Covid? So part of the declassification so more information was coming out with regards to how SARS-CoV-2 was being transmitted and, with that information, we were using that from NERVTAG, from SAGE, the bodies who were looking at the science, to inform or translate that science in what would be infection prevention and control guidance. Sorry, just because I think this is important, I'm trying to understand from what you're saying whether or not, in fact, you did look at SARS to inform the way in which you dealt with Covid but, in fact, you thought SARS was predominantly droplet based and that was why

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4		
1		addresses the fact that it was based on the reasonable
2		assumption that SARS-CoV-2 would behave in a similar way
3		to SARS-CoV-1.
4		You say in your perhaps it's easier to go to your
5		witness statement, because at paragraph 110 there's
6		a footnote to your witness statement which deals with
7		this, and you say:
8		"The evidence that SARS-CoV-1 could transmit by
9		aerosol was weak, circumstantial and very limited in
10		volume So it was certainly possible and worth noting
11		as a possibility due to the high consequence nature of
12		SARS-CoV-1, but there wasn't evidence (certainly not
13		with any certainty) to say that the airborne route was
14		common/dominant."
15		So that's obviously a different explanation, isn't
16		it, to if we just look at this document, which does
17		seem to describe the main route of transmission as being
18		at least partially aerosol?
19	Α.	Correct.
20	Q.	But it seems that you're drawing a distinction in your
21		statement between the two viruses, not based on routes
22		of transmission but based on the case fatality rate, or
23		the extent to which a higher proportion of patients die
24		when they catch SARS, as opposed to when they catch
25		Covid?
		102

1		produced for Covid, but the difference with SARS is that
2		it's deadlier, essentially?
3	Α.	Yes.
4	Q.	Is that the distinction that was being drawn by those
5		who were producing the guidance, do you think?
6	Α.	Yes.
7	Q.	Thank you.
8		That can come down, that document.
9		The Inquiry has also heard criticisms, I think in
10		Module 2, from Professor Catherine Noakes, who was,
11		I think, on the Environmental Modelling Group, and she
12		said, to summarise, essentially, that she considered
13		that there may have been a belief or a consideration
14		that we needed a higher threshold of evidence to be
15		confident that airborne transmission was occurring,
16		whereas, with respect to droplets and contact, it was
17		sufficient to make assumptions based on what was
18		reasonably known previously.
19		Do you think that's a fair criticism?
20	Α.	Sorry, could you
21	Q.	Put another way, was a higher threshold of evidence
22		required for airborne transmission, as opposed to
23		droplet and contact transmission?
24	Α.	So the infection the UK IPC cell was basing the
25		guidance on the evidence that we were being given from 104

1		outputs from NERVTAG, SAGE and aligned to what was in	1	
2		WHO guidance. So the early IPC guidance was based on	2	
3		the available evidence on transmission routes which	3	Α.
4		aligned with the WHO recommendations.	4	Q.
5	LA	<b>DY HALLETT:</b> The question was: were you looking for more	5	
6		evidence?	6	
7	Α.	I don't think it was looking for more evidence. We were	7	
8		translating the science that we were being given. So,	8	
9		had our science evidence groups, such as NERVTAG and	9	Α.
10		SAGE, said that that evidence was available in the	10	
11		literature, then we would or that was the mode of	11	
12		transmission, it was airborne, then that is what we	12	Q.
13		would have put into the IPC guidance.	13	
14	MR	FIREMAN: Just following up on that, I thought that the	14	
15		reason that you looked, or the guidance looked, at what	15	Α.
16		happened with SARS to inform how to protect against	16	Q.
17		Covid was because there wasn't evidence of the way in	17	
18		which Covid specifically transmitted and so, in order to	18	
19		do that, you look at SARS to inform and make reasonable	19	
20		assumptions.	20	
21		Is that right, first of all?	21	
22	Α.	Yes.	22	
23	Q.	If that's right, you didn't have evidence about the mode	23	
24		of transmission with respect to Covid either, did you?	24	
25		You didn't know whether it was droplet or contact, you 105	25	
1 2 3		the second paragraph under "Comparison with WHO guidelines", just about four lines up from the bottom, it says this:	1 2 3	
4		"Covid-19 is not airborne, it is droplet carried."	4	Α.
5		So this was on 28 March 2020, sent by the medical	5	
6		director of NHS England at that time. Of course, do you	6	Q.
7		think that it was helpful to be this definitive about	7	
8		the way in which the mode of transmission was for	8	
9		Covid-19, this early on in the pandemic?	9	
10	Α.	That if that was what was known as the science at	10	Α.
11		that time and was the information being given by the	11	Q.
12		CMO.	12	
13	Q.	I think this reflects, in fact, a tweet or is similar to	13	
14		a tweet that the World Health Organisation similarly put	14	
15		out saying more or less the same thing, but let's take	15	
16		it back to your perspective. You were obviously	16	
17		involved heavily with the IPC cell, you chaired it for	17	
18		some time. Did statements such as this, that were so	18	
19		definitive, make your job harder in terms of changing	19	
20		the approach as the IPC cell because to do so would mean	20	
21		going against statements that had been this definitive	21	
22		early on?	22	
23	Α.	We were working to keep the guidance updated with the	23	
24		information that we were being given, so	24	
25	Q.	If you could answer the question: did this make it 107	25	

- way that SARS did?
- 3 A. Correct.
- 4 **Q.** So, given that you didn't know that, the obvious
- 5 question is to say: why wasn't it presumed that we don't
- know about the way in which this virus transmits at all
- and we're going to protect against all three established
- 8 modes of transmission?
- 9 A. Well, we were taking our lead from the expert science
  groups to translate that, as I've said before, into the
- 11 infection prevention and control guidance.
- 2 **Q.** So was it essentially a risk assessment that you
- 13 considered, based on the evidence it's likely that it's
- 4 droplet based?
- 15 A. Correct.
- 6 Q. Can we go, please, to a document now, which is
- 17 INQ000130506, and I think it's the third page. We can
- 18 start with the first page, just to orientate ourselves.
- 19 So this is a letter from Professor Stephen Powis,
- I believe, on 28 March 2020, and it was sent to all of
- 21 these various groups. We can see here all chief
- 22 executives of all NHS trusts and foundation trusts and
- 23 to lots of those interested parties in the NHS,
  - including the royal colleges, the BMA and the RCN.

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25 If we can go to page 3, please, if we can look at
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1		harder for you to go against what had previously been
2		said and decide in fact that there was airborne
3		transmission?
4	Α.	There is a possibility that it could have been airborne
5		transmitted.
6	Q.	No, no, the question is: did statements such as this
7		influence you on the IPC cell and make it more difficult
8		for you to say, "Actually, this is an airborne virus,
9		notwithstanding what's been said previously"?
10	Α.	No.
11	Q.	Thank you.
12		Can we go now to a different document, so this is
13		a passage from Professor Beggs' report, INQ000474276,
14		and this is paragraph 139.
15		If we can just increase the size, here we go, here
16		is the bold section. We've looked at this before in the
17		Inquiry but, just to orientate yourself, this is
18		basically Professor Beggs' view, where he sets out that
19		he considers by September 2020 there was enough moderate
20		certainty evidence to strongly suggest that SARS-CoV-2
21		could be transmitted via the airborne route, and to
22		justify precautionary measures being taken by health
23		authorities to prevent this route of transmission in
24		hospitals and elsewhere.
25		Do you think that that is right? Was it the case 108

1		that, by September 2020, you felt there was sufficient	1		disease? There is no point in opening the windows in
2		evidence, or is that unfairly early in terms of the	2		terms of trying to protect against a contact disease or
3		history of events?	3	-	a droplet disease, is there?
	Α.	So the weight of evidence that we were being advised	4	Α.	
5		with, I mean, the guidance was approved by Public Health	5	_	that to get into the air potentially.
6		England, UKHSA and the recommendations that were in the	6	Q.	,
7		UK IPC guidance was consistent and aligned with the	7	_	modes of transmission?
8		World Health Organisation.	8	Α.	Yeah, specific air conditioning units and specialised
	LAI	<b>DY HALLETT:</b> Sorry, I think Mr Fireman's point is getting	9		ventilation are necessary for airborne or preventing
0		to the timing. Do you agree there was enough, what the	10		airborne transmission.
11		professor called, moderate certainty evidence, I think	11	Q.	
12		he means moderately certain evidence that SARS-CoV-2 was	12		it's also beneficial in your view
13		aerosol transmitted by September 2020?	13	Α.	
	Α.	It could be aerosol transmitted if there was	14	Q.	for other measures?
5		aerosol-generating procedures being performed.	15		Just dealing then, first of all we'll come back
	MR	<b>FIREMAN:</b> Right, that's a different point but thank you.	16		to that with the timeline, because here we're talking
17		So, other than outside of aerosol-generating procedures,	17		about September 2020, are you aware that there are other
8		you didn't think in September 2020 that was the case?	18		organisations involved in the Inquiry, such as the BMA,
19	Α.	And potentially, if people were in poorly ventilated and	19		the British Medical Association, who do support the view
20		overcrowded situations, then again that had been raised	20		that Professor Beggs espouses about the IPC cell being
21		as a possibility that it could be airborne spread.	21		too slow to acknowledge airborne transmission?
22	Q.	Bear with me one second.	22		Just trying to get down to timing, I know you said
23		With respect to poorly ventilated areas, is it not	23		earlier that you, latterly, towards the end of the
24		the case that ventilation is only a relevant precaution	24		relevant period, you started to acknowledge that
25		if you are guarding against an airborne transmitted 109	25		actually there was a genuine threat of airborne 110
1 2		transmission and you appreciated that. From the IPC cell's perspective was there ever a point where you	1 2		that came out, and there was a rapid influx of Covid-19 related scientific information, much of that was
3		collectively reached the view that it was a significant	3		disseminated through pre-prints or press releases and it
4		threat and needed to be guarded against with, for	4		posed difficult in sustaining a well considered
5		example, routine respirators being used?	5		scientific narrative, and information was often taken
6	Α.	No.	6		out of context.
7	Q.	Did the level of things like nosocomial outbreaks impact	7	Q.	Sorry, so just to try to understand what you're saying,
8		your assessment of whether or not airborne transmission	8		are you saying that it wasn't possible to sort of
9		was a significant threat?	9		disentangle the causes of nosocomial outbreaks
0	Α.	Yes, they did.	10	Α.	
	Q.	Why then, when there were some instances I think,	11	Q.	in order to say it was caused by
12		particularly in the first wave and sometimes in the	12	Α.	
13		second wave, there were instances of nosocomial	13	Q.	route of transmission as opposed to all of the other
14		outbreaks why did that not cause you to reconsider	14		factors which may have been contributing?
15		and think about the threat of airborne transmission?	15	Α.	Because infection prevention and control is
16	Α.	So we did investigate or we enquired about the different	16		multi-interventional, so it's multifaceted, so it means
17		nosocomial outbreaks of infection that had happened.	17		many things need to be put in place, and it's very
18		What we tended to see was that, when community	18		difficult to extract one thing to say that was the thing
19		prevalence went up, so when there was more Covid in the	19		that made a difference or caused this outbreak.
20		community, then the hospital admissions increased.	20	Q.	I just want to explore this point about ventilation
21		In terms of those outbreaks, infection control is	21		slightly further, seeing as you mentioned it before.
22		there seemed to be the FFP3 respirators became almost	22		Can we go, please, to INQ000203993.
23		like the silver bullet, if I could use that term, and	23		This is a paper from September 2020 which SAGE
24		there are many other precautionary measures that do need	24		produced, and it says:
25		to be put in place. So I think some of the publications	25		"Role of Ventilation in Controlling SARS-CoV-2
		111			112

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1		Transmission."
2		In this executive summary, just to deal with this
3		point, it says:
4		"Ventilation is an important factor in mitigating
5		against the risk of far-field aerosol transmission,
6		but has no impact on other transmission routes (high
7		confidence)."
8		So that's SAGE's view, that's the view of the EMG.
9		That's inconsistent with what you've just said, isn't
10		it, about ventilation being a good measure generally to
11		take in infection prevention and control?
12	Α.	In the context, so this is set in the context of
13		SARS-CoV-2. I think what I was saying earlier was other
14		pathogens have the potential and ventilation is
15		important.
16	Q.	But you would accept then, would you, that with respect
17		to SARS-CoV-2 or Covid, ventilation is only a useful
18		precaution measure if in fact you are accepting as
19		a prima facie standpoint that in fact there is airborne
20		transmission outside of aerosol-generating procedures?
21	Α.	Okay.
22	Q.	I'm asking you the question: is that not I'm not
23		telling you that, it's your evidence, but what is your
24		position on that?
25		(Pause) 113
		113
1		was a significant risk of far-field aerosol
1 2		transmission, what did you think the benefit of
		0
2		transmission, what did you think the benefit of ventilation was? If you didn't think that the virus was airborne, why were you recommending that people
2 3	А.	transmission, what did you think the benefit of ventilation was? If you didn't think that the virus was
2 3 4	A.	transmission, what did you think the benefit of ventilation was? If you didn't think that the virus was airborne, why were you recommending that people But we weren't just recommending ventilation, there was multiple measures.
2 3 4 5	A. Q.	transmission, what did you think the benefit of ventilation was? If you didn't think that the virus was airborne, why were you recommending that people But we weren't just recommending ventilation, there was
2 3 4 5 6 7 8		transmission, what did you think the benefit of ventilation was? If you didn't think that the virus was airborne, why were you recommending that people But we weren't just recommending ventilation, there was multiple measures. Sure, but just focusing on ventilation. If there was aerosol-generating procedures being
2 3 4 5 6 7 8 9	Q.	transmission, what did you think the benefit of ventilation was? If you didn't think that the virus was airborne, why were you recommending that people But we weren't just recommending ventilation, there was multiple measures. Sure, but just focusing on ventilation. If there was aerosol-generating procedures being undertaken in those areas, then it was important to have
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2 3 4 5 6 7 8 9 10	Q.	transmission, what did you think the benefit of ventilation was? If you didn't think that the virus was airborne, why were you recommending that people But we weren't just recommending ventilation, there was multiple measures. Sure, but just focusing on ventilation. If there was aerosol-generating procedures being undertaken in those areas, then it was important to have good ventilation. There are infection control sits within a complex framework of many other regulatory
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Q. A. Q.	transmission, what did you think the benefit of ventilation was? If you didn't think that the virus was airborne, why were you recommending that people But we weren't just recommending ventilation, there was multiple measures. Sure, but just focusing on ventilation. If there was aerosol-generating procedures being undertaken in those areas, then it was important to have good ventilation. There are infection control sits within a complex framework of many other regulatory documents, including health building notes and health technical memorandum, so ventilation is an important part of healthcare buildings. So any recommendations that you made about ventilation weren't necessarily indications that you thought that there was aerosol transmission, they were just general tips as to how to deal with the virus and all viruses? Yeah.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. A. Q.	transmission, what did you think the benefit of ventilation was? If you didn't think that the virus was airborne, why were you recommending that people But we weren't just recommending ventilation, there was multiple measures. Sure, but just focusing on ventilation. If there was aerosol-generating procedures being undertaken in those areas, then it was important to have good ventilation. There are infection control sits within a complex framework of many other regulatory documents, including health building notes and health technical memorandum, so ventilation is an important part of healthcare buildings. So any recommendations that you made about ventilation weren't necessarily indications that you thought that there was aerosol transmission, they were just general tips as to how to deal with the virus and all viruses? Yeah. Okay, thank you.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. A. Q.	transmission, what did you think the benefit of ventilation was? If you didn't think that the virus was airborne, why were you recommending that people But we weren't just recommending ventilation, there was multiple measures. Sure, but just focusing on ventilation. If there was aerosol-generating procedures being undertaken in those areas, then it was important to have good ventilation. There are infection control sits within a complex framework of many other regulatory documents, including health building notes and health technical memorandum, so ventilation is an important part of healthcare buildings. So any recommendations that you made about ventilation weren't necessarily indications that you thought that there was aerosol transmission, they were just general tips as to how to deal with the virus and all viruses? Yeah. Okay, thank you. That can come down.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. A. Q.	transmission, what did you think the benefit of ventilation was? If you didn't think that the virus was airborne, why were you recommending that people But we weren't just recommending ventilation, there was multiple measures. Sure, but just focusing on ventilation. If there was aerosol-generating procedures being undertaken in those areas, then it was important to have good ventilation. There are infection control sits within a complex framework of many other regulatory documents, including health building notes and health technical memorandum, so ventilation is an important part of healthcare buildings. So any recommendations that you made about ventilation weren't necessarily indications that you thought that there was aerosol transmission, they were just general tips as to how to deal with the virus and all viruses? Yeah. Okay, thank you. That can come down. Can I just ask you, then, just to conclude this area
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. A. Q.	transmission, what did you think the benefit of ventilation was? If you didn't think that the virus was airborne, why were you recommending that people But we weren't just recommending ventilation, there was multiple measures. Sure, but just focusing on ventilation. If there was aerosol-generating procedures being undertaken in those areas, then it was important to have good ventilation. There are infection control sits within a complex framework of many other regulatory documents, including health building notes and health technical memorandum, so ventilation is an important part of healthcare buildings. So any recommendations that you made about ventilation weren't necessarily indications that you thought that there was aerosol transmission, they were just general tips as to how to deal with the virus and all viruses? Yeah. Okay, thank you. That can come down. Can I just ask you, then, just to conclude this area of questioning, about what you say in your witness
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. A. Q.	transmission, what did you think the benefit of ventilation was? If you didn't think that the virus was airborne, why were you recommending that people But we weren't just recommending ventilation, there was multiple measures. Sure, but just focusing on ventilation. If there was aerosol-generating procedures being undertaken in those areas, then it was important to have good ventilation. There are infection control sits within a complex framework of many other regulatory documents, including health building notes and health technical memorandum, so ventilation is an important part of healthcare buildings. So any recommendations that you made about ventilation weren't necessarily indications that you thought that there was aerosol transmission, they were just general tips as to how to deal with the virus and all viruses? Yeah. Okay, thank you. That can come down. Can I just ask you, then, just to conclude this area

		SO I UNITE UNAL WHAT UNALS SAYING IS THAT THE ACTOSOL
2		transmission depends on the interaction of multiple
3		factors.
4	Q.	It does, yes, but the starting point is that in terms of
5		recommending ventilation as a measure of protecting
6		against the virus, it's only worth ventilating and
7		this is something that Professor Beggs said last week,
8		he said that people generally think ventilation is
9		a good thing, but they don't necessarily acknowledge
10		that it's the virus may be airborne. But they think
11		ventilation is a good thing. But this paper seems to be
12		saying that ventilation as an IPC measure is only worth
13		taking if in fact you're protecting against
14		an aerosol-borne disease or an aerosol against
15		aerosol transmission.
16		So I'm just trying to understand why you think
17		ventilation was good if you didn't think there was
18		aerosol transmission as of earlier on in 2020 and into
19		2021?
20	Α.	Sorry, I don't think I'm disagreeing, I think
21		I'm agreeing, saying that ventilation is an important
22		factor to mitigate against that far-field aerosol
23		transmission.
24	Q.	I understand that you're saying that, but what
25	ч.	I'm trying to understand is, if you didn't think there
25		
1		"My view that aerosol transmission is
2		significant compared to other routes is that this is not
2 3		significant compared to other routes is that this is not sufficiently strong to recommend that FFP3 respirators
2 3 4		significant compared to other routes is that this is not sufficiently strong to recommend that FFP3 respirators are routinely used in locations other than high-risk
2 3 4 5	۸	significant compared to other routes is that this is not sufficiently strong to recommend that FFP3 respirators are routinely used in locations other than high-risk clinical areas where AGPs take place."
2 3 4 5 6	А.	significant compared to other routes is that this is not sufficiently strong to recommend that FFP3 respirators are routinely used in locations other than high-risk clinical areas where AGPs take place." That's correct.
2 3 4 5 6 7	Q.	significant compared to other routes is that this is not sufficiently strong to recommend that FFP3 respirators are routinely used in locations other than high-risk clinical areas where AGPs take place." That's correct. Does that remain your view today?
2 3 4 5 6 7 8	Q. A.	significant compared to other routes is that this is not sufficiently strong to recommend that FFP3 respirators are routinely used in locations other than high-risk clinical areas where AGPs take place." That's correct. Does that remain your view today? Yes.
2 3 4 5 6 7 8 9	Q.	significant compared to other routes is that this is not sufficiently strong to recommend that FFP3 respirators are routinely used in locations other than high-risk clinical areas where AGPs take place." That's correct. Does that remain your view today? Yes. What would have been sufficiently strong evidence to
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2 3 4 5 6 7 8 9 10 11 12	Q. A.	significant compared to other routes is that this is not sufficiently strong to recommend that FFP3 respirators are routinely used in locations other than high-risk clinical areas where AGPs take place." That's correct. Does that remain your view today? Yes. What would have been sufficiently strong evidence to justify, certainly during the pandemic, routinely using FFP3 respirators for healthcare workers? So that would have been the scientific evidence that
2 3 4 5 6 7 8 9 10 11 12 13	Q. A. Q.	significant compared to other routes is that this is not sufficiently strong to recommend that FFP3 respirators are routinely used in locations other than high-risk clinical areas where AGPs take place." That's correct. Does that remain your view today? Yes. What would have been sufficiently strong evidence to justify, certainly during the pandemic, routinely using FFP3 respirators for healthcare workers? So that would have been the scientific evidence that would have come from the expert bodies who were
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q. A. Q. A.	significant compared to other routes is that this is not sufficiently strong to recommend that FFP3 respirators are routinely used in locations other than high-risk clinical areas where AGPs take place." That's correct. Does that remain your view today? Yes. What would have been sufficiently strong evidence to justify, certainly during the pandemic, routinely using FFP3 respirators for healthcare workers? So that would have been the scientific evidence that would have come from the expert bodies who were providing that information during the pandemic, and from international organisations such as the World Health Organisation. So a conclusive statement that Covid-19 was airborne?
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. A. Q. A.	significant compared to other routes is that this is not sufficiently strong to recommend that FFP3 respirators are routinely used in locations other than high-risk clinical areas where AGPs take place." That's correct. Does that remain your view today? Yes. What would have been sufficiently strong evidence to justify, certainly during the pandemic, routinely using FFP3 respirators for healthcare workers? So that would have been the scientific evidence that would have come from the expert bodies who were providing that information during the pandemic, and from international organisations such as the World Health Organisation. So a conclusive statement that Covid-19 was airborne? Yes. Would it ever be practical, ever, at all a slightly different point, but would it ever have been practical
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. A. Q. A.	significant compared to other routes is that this is not sufficiently strong to recommend that FFP3 respirators are routinely used in locations other than high-risk clinical areas where AGPs take place." That's correct. Does that remain your view today? Yes. What would have been sufficiently strong evidence to justify, certainly during the pandemic, routinely using FFP3 respirators for healthcare workers? So that would have been the scientific evidence that would have come from the expert bodies who were providing that information during the pandemic, and from international organisations such as the World Health Organisation. So a conclusive statement that Covid-19 was airborne? Yes. Would it ever be practical, ever, at all a slightly different point, but would it ever have been practical to advise that FFP3 respirators would be used on
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. A. Q. A.	significant compared to other routes is that this is not sufficiently strong to recommend that FFP3 respirators are routinely used in locations other than high-risk clinical areas where AGPs take place." That's correct. Does that remain your view today? Yes. What would have been sufficiently strong evidence to justify, certainly during the pandemic, routinely using FFP3 respirators for healthcare workers? So that would have been the scientific evidence that would have come from the expert bodies who were providing that information during the pandemic, and from international organisations such as the World Health Organisation. So a conclusive statement that Covid-19 was airborne? Yes. Would it ever be practical, ever, at all a slightly different point, but would it ever have been practical to advise that FFP3 respirators would be used on patients, or is that simply impractical given the need

A. So I think that what that's saying is that the aerosol

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1		wearing but they can exhale, if they have a valve,	1
2		actually leak the pathogen you're trying to protect	2
3		against. So you would never the recommendation is,	3
4		and as I understand it, put an FFP3 respirator on	4
5	_	a patient.	5
6	Q.	That includes a very vulnerable patient, for example?	6
7	Α.	Yes.	7
8	Q.	We were speaking earlier about the March 2020 guidance	8
9		and what informed it. The guidance itself was also	9
10		adapted, I think it says on its head, from the pandemic	10
11		influenza guidance; is that right?	11
12	A.	That's correct.	12
13	Q.	You've described in your statement that while you were	13
14		at Health Protection Scotland you led a working group	14
15 16		commissioned by the Department of Health and Social Care	15
16 17		to review pandemic influenza control guidance; is that	16 17
18	Α.	right? That's correct.	17
19	Q.	Does it follow that of course Covid-19 was a different	18
20	ω.	virus to pandemic influenza or influenza generally, but	20
20		the principles that were derived from that review on how	20
22		to deal with a pandemic and the pandemic influenza virus	21
23		also applied to the way in which you would approach	22
24		Covid-19, given that that guidance then was adapted for	24
25		the Covid-19 guidance?	25
		117	
4		use of DDE but you waren't informed by the actual level	1
1 2		use of PPE but you weren't informed by the actual level	1
2 3	Α.	of supply of PPE? That's correct.	2
4	Q.	Can we look, please, at INQ000489907, page 31,	4
5	ω.	paragraph 6.33. This is a passage from Dame Jenny	5
6		Harries', who was the Deputy Chief Medical Officer,	6
7		witness statement, and she is discussing the selection	7
, 8		of aerosol-generating procedures in March 2020.	8
9		She says, four lines up:	9
10		"The list of AGPs included chest compressions."	10
11		Don't worry about that:	11
12		"There were, at that time, extremely constrained	12
13		supplies of respirators, and so they were prioritised	13
14		for staff performing the highest risk activities.	14
15		Alongside this, there was a recommendation that FFP2s	15
16		also be sourced."	16
17		Okay. So she seems to be saying here that the	17
18		constrained supplies of respirators directly impacted on	18
19		the designation of aerosol-generating procedures, which	19
20		would suggest that supply did influence IPC advice. So	20
21		she seems to be saying that she has a slightly different	21
22		view to what you say the UK IPC cell's view was; is that	22
23		correct?	23
20			

- 24 A. So the recommendation in the guidance at that time was
- 25 not to do with supply but the recommendation was to wear 119

1	Α.	Yes.
2	Q.	You say in your statement at paragraph 89 that one of
3		the conclusions of the review was that, during
4		a pandemic, supplies of RPE and PPE may become scarce,
5		making it essential to avoid unnecessary or
6		inappropriate use.
7		This is a principle that it appears to apply to all
8		pandemics; is that right?
9	Α.	Correct.
10	Q.	You go on to say in your witness statement that the
11		supply of PPE did not influence the IPC advice provided
12		by the UK IPC cell?
13	Α.	That is correct.
14	Q.	Can I try to understand the two points you're making
15		there: are you drawing a distinction between being
16		guided generally by a principle that it's important to
17		avoid inappropriate and unnecessary use of PPE and RPE,
18		with the fact that you weren't monitoring the numbers of
19		supplies of PPE to inform the guidance that you gave?
20	Α.	Sorry, could you
21	Q.	You say as a general principle it's important to avoid
22		unnecessary or inappropriate use of PPE but you then say
23		that the supply of PPE didn't influence the advice you
24		gave. Are you saying that you were informed by the
25		general principle that you need to avoid inappropriate
		118
1		a respirator if aerosol-generating procedures were being
2		performed and, of course, they would be the highest-risk
3		activities in terms of airborne transmission. That was

- performed and, of course, they would be the highest-risk
  activities, in terms of airborne transmission. That was
  a decision that was endorsed by NERVTAG and ACDP, as
  stated there, and the Health and Safety Executive.
  Q. But she seems to be saying here that what happened,
  because there were constrained supplies, it was
  necessary to prioritise the highest possible risk areas
  as being aerosol-generating procedures. The logical
  inference from that is that, if you had more supplies,
  you may not have needed to do that?
  A. That -Q. Is that right?
  A. That was not the case.
  So you disagree with her?
  A. I think it's a different context. I'm not disagreeing.
  - 7 I think what she's saying there, that if we had got to
- 8 a point -- and I recognise that -- that supplies were
- l9 limited, then they might have had to prioritise and what
- 20 she, Dame Jenny is saying in that regard is that staff
- performing the highest risk should have those supplies
- 22 made available to them. I don't recall us ever being in
- 23 that position and the -- and that was not what was
- 24 recommended in the IPC guidance.
- 25 **Q.** Thank you. Of course, we do know that the way in which 120

1		the guidance that can come down was approached was	1
2		that the highest risk aerosol areas, if I can put it	2
3		that way, were aerosol-generating procedures and where	3
4		you were dealing with those, or in AGP hotspots, you	4
5		needed to wear respirators?	5
6	Α.	Correct.	6
7	Q.	So this, I think, reflects the understanding, does it	7
8		not, that AGPs were thought at that time and they may	8
9		well be thought by you to continue to be the case to	9
10		generate a higher number of aerosols than activities	10
11		such as breathing or talking or coughing or sneezing; is	11
12		that right?	12
13	Α.	Correct.	13
14	Q.	The Inquiry has received evidence from organisations	14
15		such as the Royal College of Anaesthetists, the Faculty	15
16		of Intensive Care Medicine and the Association of	16
17		Anaesthetists, and I just want to take you to a passage	17
18		from their witness statement that they've set out, it's	18
19		INQ000389244, paragraph 291 to 292. They talk about	19
20		here that frontline healthcare workers in general were	20
21		at higher risk of infection, but:	21
22		" anaesthetists and intensivists seemed	22
23		relatively less affected, both in terms of infection and	23
24		Covid-19 related mortality."	24
25		They then cite a study from April 2020 and	25
		121	
1		they are performing, how ill the patients are, the	1
2		severity of the pathogen, in terms of the approach that	2
3		they take. So we were giving guidance in terms of what	3
4		infection prevention and control measures to put in	4
5		place.	5
6	Q.	I understand what you're saying there but, if those	6
7	ч.	working in ICU and HCU and performing aerosol-generating	7
, 8		procedures were actually being protected to a greater	8
9		extent in terms of infection rates, there were less	9
10		infection rates among those than those who were working	10
11		on wards, for example, with Covid-19 patients would	10
12		that not indicate that maybe the protective factor of	12
13		the PPE that they were using was part of the	12
14		contributing factor to them being better protected?	13
15	Α.	I go back to the previous discussion response. Trying	14
16		to extrapolate out that that was a defining factor that	16
17		they were wearing an FFP3 respirator is quite difficult,	10
18		it's	18
19	Q.	Thank you, that's clear, can we take that down, please.	10
	ω.		
20 21		A linked issue is really the distinction that is drawn	20 21
21		between aerosol-generating procedures and other	21
22		procedures. We've heard the evidence of Professor	22
		Beggs, who doesn't think there is a huge distinction to	23
24 25		be drawn between them, and I think the British Medical	24
25		Association in their witness statement called it a false 123	25

1		I appreciate that's very early on and perhaps not the
2		most comprehensive in terms of how lengthy it is
3		where they talk about 119 deaths of healthcare workers
4		and no deaths found among anaesthetists and
5		intensivists. Then in the reasons being explored they
6		talk about the use of higher performing PPE.
7		So I suppose the question is this: if it was the
8		case that those using higher performing PPE were dying
9		at lower rates and were infected at lower rates, did
10		that not indicate that, in fact, it was necessary to
11		spread the use of higher performing RPE and PPE more
12		widely among other areas?
13	A.	No.
14	Q.	Why?
15	A.	Because the risks are not the same in different areas,
16		the risks were clearly different in those AGP hotspot
17		areas and intensive care units but providing routine
18		care did not may not provide the same risk. But
19		I think risk assessment is the approach that we also put
20		within the guidance for healthcare organisations who are
21		well versed in performing risk assessments on
22		a day-to-day basis. Covid-19 is not the only pathogen
23		that we deal with in our healthcare settings, we are
24		dealing with infections all of the time, and clinicians
25		will make risk assessments depending on the tasks that
		122
1		dichotomy. So do you accept that there is or began to
2		be, at least, some way into the pandemic, a reasonable
3		body of scientific evidence which said, in fact, there
4		isn't a distinction between the activities that do and
5		don't produce aerosols in terms of aerosol-generating
6	_	procedures. You accept that as a reasonable body of
7	Α.	Yes.
8	Q.	I suppose then, of, course, the obvious question is:
9		would it then have been appropriate, if that was the
10		case and you accepted that to be the case at the time,
11		to have more widely recommended the use of respirators?
12	A.	Sorry, I don't follow.
13 14	Q.	If, in fact, you accepted there is a reasonable body of
14 15		scientific evidence that says aerosols are generated in a number of different circumstances, not just
15 16		a number of different circumstances, not just aerosol-generating procedures; if that's an accepted
17		scientific view, does it follow that respirators should
18		be more widely used?
19	Α.	No.
20	A. Q.	Why not?
20	Q.	Because I think respiratory droplets or respiratory
22	<i>.</i>	particles that come out of your mouth, they do vary, so,
23		you know, and we go back to that, the droplets, you
_0 24		know so there are multiple different sizes. I think
25		what we recognise is that there is now probably
		124

(31) Pages 121 - 124

# UK Covid-19 Inquiry

1		a continuum of those droplet sizes and not the
2		demarcations that we had before. So, again, it doesn't
3		follow that FFP3 respirators should be worn for routine
4		activity when there are other measures that can be put
5		and source control, so patients wearing an FRSM, the
6		staff are wearing an FRSM, and other infection
7		prevention and control measures are put in place.
8		I don't the FFP3 wearing is not the silver bullet to
9		prevent an infection.
10	Q.	I understand what you're saying about other measures
11		but, of course, you acknowledged earlier on in your
12		evidence that using an FRSM won't protect against the
13		inhalation of aerosols and so, if aerosols are generated
14		in lots of other areas, using that won't protect you in
15		the way that a respirator will, so why not use
16		a respirator in those circumstances, if there is aerosol
17		risk of transmission?
18	Α.	We're trying to control all of the factors, it's not
19		just down to the PPE, so the kind of environmental
20		factors and other, and when, you know, viral load is
21		important as well and there's likely more viral load in
22		a heavy droplet that comes out of someone's mouth, that
23		will fall quite quickly, rather than fine aerosols that
24		will remain suspended through the air, and FFP3s are not
25		a comfortable piece of kit to wear and, in certain 125
		125
1		initial identification of aerosol-generating procedures
2		for the Covid-19 guidance?
3	Α.	The initial AGP or aerosol-generating procedure list was
4		published, as I recall, in the first UK IPC guidance
5		document by Public Health England and that AGP list was
6		based on the aerosol-generating procedure list that was
7	~	in the national manual for Scotland.
8	Q.	I think that's correct. I think can we have a look
9		at I think that guidance was 13 March or something
10	•	around then
11 12	A.	Around. that was issued. Can we look at an email chain,
	Q.	
13		INQ000381163. This is an email chain which you're
14 15		involved in, in early March 2020. If we start, you can see right at the bottom there, there's an email from
16		Susan Hopkins of Public Health England, Dr Susan
17		Hopkins Professor Hopkins I believe it is. If we go
17		down to the next page on page 6, we can see what she
18		said. Sorry, apologies, yes, here we go, it says here:
20		"The list I submitted to Keith [I think this is
20 21		-
		Keith Willett of NHS England]", is as follows, and we
ົ່ງງ		can see a list of them non-invasive ventilation
22 23		can see a list of them, non-invasive ventilation,
23		et cetera.
23 24		et cetera. The one I want to ask you about is there is
23		et cetera.

1		circumstances, you know, we had frontline nurses telling
2		us that they found it difficult to breathe.
3		So I think it's important that we look to those
4		other hierarchy of control measures that the Health and
5		Safety Executive are set out about, you know, how we
6		processes that we put in place, the environment, the
7		ventilation, notwithstanding that PPE is important, but
8		it's not the silver bullet.
9	Q.	If, however, we are going to distinguish between the
10		procedures which do generate aerosols and those which
11		don't, and I know what you say about respirators not
12		being the only way of protecting against aerosols but,
13		if we are going to say that some procedures are
14		aerosol-generating procedures and, therefore, recommend
15		a higher level of respiratory protection in those areas,
16		do you agree that it's important that those procedures
17 18	•	that are designated as AGPs are correctly so identified?
10	A.	Yes. There are two disadvantages, aren't there, both in terms
20	Q.	of wrongly categorising a procedure, which is, in fact,
20 21		not aerosol generating and failing to designate one
21		which is, in fact, aerosol generating?
22	Α.	Sure.
24	Q.	Do you recall being involved separately perhaps to your
25	·	role in the IPC cell, or in fact in addition to, in the
20		126
1		and then, if we go back to the email chain and we can
1		and then, if we go back to the email chain and we can
2		see that you then provided a list above. This was
2 3		see that you then provided a list above. This was a subsequent email from you later that evening, where
2 3 4	А.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the,
2 3 4 5	A. Q.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland?
2 3 4 5 6	_	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct.
2 3 4 5 6 7	_	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual.
2 3 4 5 6 7 8	_	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that
2 3 4 5 6 7 8 9	Q.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right?
2 3 4 5 6 7 8 9	Q. A.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right? That's correct.
2 3 4 5 6 7 8 9 10 11	Q. A.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right? That's correct. We can see then that Dr Hopkins subsequently says thank
2 3 4 5 6 7 8 9 10 11 12	Q. A.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right? That's correct. We can see then that Dr Hopkins subsequently says thank you and you use that list, and that's the list that then
2 3 4 5 6 7 8 9 10 11 12 13	Q. A. Q.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right? That's correct. We can see then that Dr Hopkins subsequently says thank you and you use that list, and that's the list that then makes its way into the guidance, isn't it?
2 3 4 5 6 7 8 9 10 11 12 13 14	Q. A. Q. A.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right? That's correct. We can see then that Dr Hopkins subsequently says thank you and you use that list, and that's the list that then makes its way into the guidance, isn't it? Yes.
2 3 4 5 6 7 8 9 10 11 12 13 14 15	Q. A. Q. A.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right? That's correct. We can see then that Dr Hopkins subsequently says thank you and you use that list, and that's the list that then makes its way into the guidance, isn't it? Yes. So can I just understand, do you know if this
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q. A. Q. A.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right? That's correct. We can see then that Dr Hopkins subsequently says thank you and you use that list, and that's the list that then makes its way into the guidance, isn't it? Yes. So can I just understand, do you know if this conversation where Dr Hopkins proposed one list of
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q. A. Q. A.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right? That's correct. We can see then that Dr Hopkins subsequently says thank you and you use that list, and that's the list that then makes its way into the guidance, isn't it? Yes. So can I just understand, do you know if this conversation where Dr Hopkins proposed one list of procedures and you then proposed another, as was
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. A. Q. A.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right? That's correct. We can see then that Dr Hopkins subsequently says thank you and you use that list, and that's the list that then makes its way into the guidance, isn't it? Yes. So can I just understand, do you know if this conversation where Dr Hopkins proposed one list of procedures and you then proposed another, as was reflected within the NIPCM in Scotland, was in fact the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Q. A. Q. A.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right? That's correct. We can see then that Dr Hopkins subsequently says thank you and you use that list, and that's the list that then makes its way into the guidance, isn't it? Yes. So can I just understand, do you know if this conversation where Dr Hopkins proposed one list of procedures and you then proposed another, as was reflected within the NIPCM in Scotland, was in fact the genesis of the list of aerosol-generating procedures
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. A. Q. Q.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right? That's correct. We can see then that Dr Hopkins subsequently says thank you and you use that list, and that's the list that then makes its way into the guidance, isn't it? Yes. So can I just understand, do you know if this conversation where Dr Hopkins proposed one list of procedures and you then proposed another, as was reflected within the NIPCM in Scotland, was in fact the genesis of the list of aerosol-generating procedures that ended up on the guidance?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. A. Q. A.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right? That's correct. We can see then that Dr Hopkins subsequently says thank you and you use that list, and that's the list that then makes its way into the guidance, isn't it? Yes. So can I just understand, do you know if this conversation where Dr Hopkins proposed one list of procedures and you then proposed another, as was reflected within the NIPCM in Scotland, was in fact the genesis of the list of aerosol-generating procedures that ended up on the guidance? Yes. If we can then also go to another document, which is INQ000381182.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. A. Q. A.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right? That's correct. We can see then that Dr Hopkins subsequently says thank you and you use that list, and that's the list that then makes its way into the guidance, isn't it? Yes. So can I just understand, do you know if this conversation where Dr Hopkins proposed one list of procedures and you then proposed another, as was reflected within the NIPCM in Scotland, was in fact the genesis of the list of aerosol-generating procedures that ended up on the guidance? Yes. If we can then also go to another document, which is INQ000381182. This is an email of 25 March 2020, and there are
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. A. Q. A.	see that you then provided a list above. This was a subsequent email from you later that evening, where you list out a series of procedures that were in the, I think, NIPCM in Scotland? Correct. The National Infection Prevention and Control Manual. We can see here, omitted from this list is CPR; is that right? That's correct. We can see then that Dr Hopkins subsequently says thank you and you use that list, and that's the list that then makes its way into the guidance, isn't it? Yes. So can I just understand, do you know if this conversation where Dr Hopkins proposed one list of procedures and you then proposed another, as was reflected within the NIPCM in Scotland, was in fact the genesis of the list of aerosol-generating procedures that ended up on the guidance? Yes. If we can then also go to another document, which is INQ000381182.

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Q. That can come down, thank you.

they approached things.

If we look at page 13, please.

says last accessed there, 4 May 2020.

caused quite a lot of controversy, wasn't it?

CPR as an AGP within the UK guidance?

from healthcare workers?

modes, sorry.

cell discussions?

we adopted.

INQ000189351.

guidance.

A. Yes.

I just want to just tie this up with one more document, if that's okay, and go to a document of --

This is a review that was done by Health Protection Scotland of the comparison between different countries and different guidance providers and the way in which

This is the guidance that was given by the European

Under guidance on AGPs, at the bottom, they do include cardiopulmonary resuscitation in an AGP in their

So I just want to understand, this is an area that

Q. Given that there were a number of clinicians and indeed the European guidance classifying CPR as an AGP, was it perhaps not precautionary enough to have not included

A. So that was a decision made by NERVTAG, as you correctly say, and Public Health England, as I recall, then published the outcome of the NERVTAG review with 130

that was unhelpful and perhaps damaged trust in guidance

A. Yes. But, as I say, I think Public Health England, as I recall, then put out a published -- you know, a statement on the back of it then giving local determination, and I do recall that UK Resuscitation Council did reply saying that that was a helpful thing

Q. Can I ask you about the way in which the cell approached evidence generally, and emerging evidence about Covid-19 being transmitted through various different means --

that you relied on, at least partially, during the IPC

A. So Scotland had a National Infection Prevention and Control Manual, and that manual was underpinned by evidence, reviews on standard infection control precautions and the basics of transmission-based precautions, so they had a well established scientific evidence base for the manual in Scotland. So that provided a really good foundation for what was then the pandemic flu guidance for 2019 and was the document that

Because Scotland had that infrastructure, it was

132

What was the role of the ARHAI rapid review process

for Public Health England to have done.

Centre for Disease Prevention and Control. I think it

1		senior roles in NHS, I think in Public Health England at	1
2		least.	2
3		Then if we go to page 3 of this document, we can see	3
4		it says "Dear All" and there's a read-out of a meeting	4
5		"this morning". Then if you just go to the bullet point	5
6		that is just second from the bottom, this is	6
7		25 March 2020, here it says:	7
8		"Chest compressions also represent an aerosol	8
9		generating procedure."	9
10		So what I want to clarify, first of all, with you,	10
11		is that chest compressions and CPR didn't end up in the	11
12		guidance, we know that, but as of 25 March 2020, and	12
13		indeed of Dr Hopkins' initial list, there were senior	13
14		clinicians who did think that CPR or chest compressions	14
15		were procedures that should be designated as AGPs. Do	15
16		you agree with that statement?	16
17	Α.	Yes.	17
18	Q.	Ultimately, you're right, the situation was reviewed by	18
19		NERVTAG, and they said essentially that whilst chest	19
20		compressions could produce aerosols, that was just in	20
21		the same way as breathing or coughing; is that right?	21
22	Α.	Correct.	22
23	Q.	So they considered it wasn't appropriate to designate it	23
24		as an AGP?	24
25	Α.	Correct.	25
		129	
1		a caveat that the interpretation and the application of	1
2		that AGP list was ultimately to be determined at a local	2
2 3		that AGP list was ultimately to be determined at a local level where specific risks and exposures were better	2 3
2 3 4		that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood.	2 3 4
2 3 4 5		that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood. So I think the first time we ever had an agreed	2 3 4 5
2 3 4 5 6		that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood.	2 3 4 5 6
2 3 4 5		that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood. So I think the first time we ever had an agreed	2 3 4 5
2 3 4 5 6 7 8		that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood. So I think the first time we ever had an agreed well, not an agreed, but we had an aerosol-generating procedure or a list of aerosol-generating procedures was that that was published in 2016 in the Scottish	2 3 4 5 6 7 8
2 3 4 5 6 7 8 9		that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood. So I think the first time we ever had an agreed well, not an agreed, but we had an aerosol-generating procedure or a list of aerosol-generating procedures	2 3 4 5 6 7
2 3 4 5 6 7 8 9 10		that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood. So I think the first time we ever had an agreed well, not an agreed, but we had an aerosol-generating procedure or a list of aerosol-generating procedures was that that was published in 2016 in the Scottish infection control manual, and they teased out those parts of the procedure that could be aerosol generating,	2 3 4 5 6 7 8 9 10
2 3 4 5 6 7 8 9 10 11		that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood. So I think the first time we ever had an agreed well, not an agreed, but we had an aerosol-generating procedure or a list of aerosol-generating procedures was that that was published in 2016 in the Scottish infection control manual, and they teased out those parts of the procedure that could be aerosol generating, so I suppose they dissected CPR whereas the WHO and	2 3 4 5 6 7 8 9 10 11
2 3 4 5 6 7 8 9 10		that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood. So I think the first time we ever had an agreed well, not an agreed, but we had an aerosol-generating procedure or a list of aerosol-generating procedures was that that was published in 2016 in the Scottish infection control manual, and they teased out those parts of the procedure that could be aerosol generating,	2 3 4 5 6 7 8 9 10
2 3 4 5 6 7 8 9 10 11		that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood. So I think the first time we ever had an agreed well, not an agreed, but we had an aerosol-generating procedure or a list of aerosol-generating procedures was that that was published in 2016 in the Scottish infection control manual, and they teased out those parts of the procedure that could be aerosol generating, so I suppose they dissected CPR whereas the WHO and others just put cardiopulmonary resuscitation down as one procedure.	2 3 4 5 6 7 8 9 10 11
2 3 4 5 6 7 8 9 10 11 12 13 14	Q.	that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood. So I think the first time we ever had an agreed well, not an agreed, but we had an aerosol-generating procedure or a list of aerosol-generating procedures was that that was published in 2016 in the Scottish infection control manual, and they teased out those parts of the procedure that could be aerosol generating, so I suppose they dissected CPR whereas the WHO and others just put cardiopulmonary resuscitation down as	2 3 4 5 6 7 8 9 10 11 12 13 14
2 3 4 5 6 7 8 9 10 11 12 13 14 15	Q. A.	that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood. So I think the first time we ever had an agreed well, not an agreed, but we had an aerosol-generating procedure or a list of aerosol-generating procedures was that that was published in 2016 in the Scottish infection control manual, and they teased out those parts of the procedure that could be aerosol generating, so I suppose they dissected CPR whereas the WHO and others just put cardiopulmonary resuscitation down as one procedure.	2 3 4 5 6 7 8 9 10 11 12 13 14 15
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Α.	<ul> <li>that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood.</li> <li>So I think the first time we ever had an agreed well, not an agreed, but we had an aerosol-generating procedures was that that was published in 2016 in the Scottish infection control manual, and they teased out those parts of the procedure that could be aerosol generating, so I suppose they dissected CPR whereas the WHO and others just put cardiopulmonary resuscitation down as one procedure.</li> <li>And that would include chest compressions, would it? Yes.</li> <li>Okay, that can come down.</li> <li>Just to summarise, this issue, as I said, caused some controversy. There was a statement put out by, I believe, the Resuscitation Council, and they</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Α.	that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood. So I think the first time we ever had an agreed well, not an agreed, but we had an aerosol-generating procedures was that that was published in 2016 in the Scottish infection control manual, and they teased out those parts of the procedure that could be aerosol generating, so I suppose they dissected CPR whereas the WHO and others just put cardiopulmonary resuscitation down as one procedure. And that would include chest compressions, would it? Yes. Okay, that can come down. Just to summarise, this issue, as I said, caused some controversy. There was a statement put out by, I believe, the Resuscitation Council, and they essentially said that their guidance, contrary to	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Α.	<ul> <li>that AGP list was ultimately to be determined at a local level where specific risks and exposures were better understood.</li> <li>So I think the first time we ever had an agreed well, not an agreed, but we had an aerosol-generating procedures was that that was published in 2016 in the Scottish infection control manual, and they teased out those parts of the procedure that could be aerosol generating, so I suppose they dissected CPR whereas the WHO and others just put cardiopulmonary resuscitation down as one procedure.</li> <li>And that would include chest compressions, would it? Yes.</li> <li>Okay, that can come down.</li> <li>Just to summarise, this issue, as I said, caused some controversy. There was a statement put out by, I believe, the Resuscitation Council, and they essentially said that their guidance, contrary to national guidance, was that you should wear a respirator</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
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helpful to the cell because we did not have that 1 2 structure in England. Initially when I first came into 3 post in April 2020 that structure wasn't in place, and 4 Wales were using -- they had adopted Scotland's manual, 5 and Northern Ireland had something slightly different. 6 So Scotland were in a good position to support us with 7 some rapid reviews. 8 It wasn't the only place that we were taking 9 evidence from. So, as I say, they had the mechanism and 10 the structure in place to do that. We were also looking at the outputs, as I say, coming from SAGE, NERVTAG and 11 12 the other scientific groups and using that to support 13 and translate that evidence into infection prevention 14 and control practice, and always making sure that we 15 were aligned with WHO guidelines. 16 Q. So did relying on this rapid review process reflect 17 a process that you would use both pre-pandemic and 18 during the pandemic of it being one of a number of 19 different ways in which you were assessing evidence? 20 Α. Correct. 21 Q. Do you recall a specific meeting of the UK IPC cell 22 which took place on 22 December 2020, and a discussion 23 at that meeting about potentially extending the use of 24 FFP3 masks that wasn't ultimately proceeded with? 25 I think that's right, isn't it? 133 1 down, it says: 2 "If we increase the use of FFP3 masks we need to 3 consider stock availability ..." 4 We touched on supply earlier but is this a comment 5 more about examining, if we do extend the use of FFP3s, 6 we need to just make sure that that's not going to have 7 an impact on putting trusts under additional pressure, 8 rather than saying we don't have the stocks? 9 Yeah, so that wouldn't have been a decision that we Α. had -- would have made but, if we had come to 10 11 a consensus agreement that there had been a change in 12 the mode of transmission and we were going to move to 13 FFP3 masks, then that's something that we would have 14 required to escalate across all the UK nations to senior 15 clinical leaders, if that was the position to say that 16 we think there's a change here this is going to impact 17 on use Q. Thank you. Then two comments down, CB there, I think 18 19 that's Colin Brown of Public Health England, he says: 20 "Our understanding of aerosol transmission has 21 changed. A precautionary approach to move to FFP3 masks 22 whilst we are awaiting evidence should be advised." 23 So this is, it seems, one of the first points, 24 I think, in the IPC cell meetings where someone is 25 saying in fact we need to take a precautionary approach 135

9 Inquiry	y	16 September 2024
1		Can we just as a starting point in fact go to
2		INQ000398244. I want to actually go to page 3 of this,
3		if that's okay.
4		If we can look at some of the discussions that were
5		had at this meeting as I said, this was a meeting
6		where you were discussing the potential to extend FFP3s,
7		and you start the conversation on this page and you're
8		saying:
9		"If patient and staff face mask wearing and other
10		IPC measures e.g. decontamination of
11		environment/equipment are not being reliably implemented
12		as they should be, it does not seem appropriate, in the
13		absence of evidence regarding any change in mode of
14 15		transmission, that a change to PPE should be
15 16		recommended"
10		So that goes back, I think, to something that you're saying today about how it's difficult to disentangle the
18		causes of increased transmission
10	Α.	
20	Q.	and that you need specific evidence that, in fact,
20	α.	the reason for that cause is the increased aerosol
22		transmission before recommending FFP3s be more widely
23		used?
24	Α.	Or a change in the mode of transmission.
25	Q.	Then a fourth line down it says or fourth comment
	-	134
1		and extend the use of FFP3s. Can you explain, were you
2		able to reach any sort of agreement on this during this
3		meeting, can you recall?
4	Α.	I do recall that we did come to a consensus or
5		an agreement, after which we pulled together a position
6		statement setting out what our recommendations were, and
7		that
8	Q.	I apologise, I think there's two meetings, there is the
9		22nd and there is the 23rd.
10	Α.	Yes.
11	Q.	If we carry on to the next page we might be able to see
12		what happens in this particular meeting. You say here
13		that there's then a comment about fit testing by LI,
14		I think that's Laura Imrie, and then I think you say:
15		"We appear to have consensus."
16		You've listed what you have a consensus on. But you
17		don't appear to say you have a consensus, or at least
18		it's not within the bullet points on the question of
19		whether you need to change the level of PPE/RPE?
20	Α.	That's correct.
21	Q.	So was this the point, a point at which the UK IPC cell
22		wasn't able to specifically agree how to proceed with
23		this issue, and I think you then met again the next day;
24		is that right?
25	Α.	So there was a consensus, and based on the information 136

1		and the discussion that we had, as I recall, was that	1
2		the new variant that we were discussing and whether that	2
3		was going to have an impact on control measures was or	3
4		seemed, to be more transmissible, but what hadn't	4
5		changed was the mode of transmission. So what that	5
6		meant for the cell, in a way, was to be clear that all	6
7		those other precautionary measures were being put in	7
8		place to make sure that infection wasn't being	8
9		transmitted. So again not just down to the FFP3	9
10		respirator, but were organisations checking that those	10
11		precautionary measures that they had in place were	11
12		reliably being applied and monitored actually have been	12
13	_	followed.	13
14	Q.	What you didn't agree with then, at this stage, if I can	14
15		summarise, is that a precautionary approach to move to	15
16		FFP3 masks, whilst awaiting further evidence, should be	16
17		advised; you didn't agree that that was the way to go at	17
18		this stage, did you?	18
19	Α.	That was a consensus across the UK IPC cell and that was	19
20		what we put into a position statement that we then took	20
21		or it was discussed. I then discussed it with my CNO,	21
22		and that paper was discussed at the UK senior leads	22
23		meeting. So it would have been them that would have	23
24		made a final decision on whether any change should have	24
25		been made. 137	25
1		"LR confirmed today's meeting will be a further	1
2		discussion to reach consensus regarding the IPC/PPE	2
3		guidance following the meeting yesterday to discuss	3
4		[the] new variant", because you were discussing it in	4
5		light of the new variant and the potential	5
6		transmissibility of that variant, I believe; is that	6
7		right?	7
8	A.	Yeah, that's correct.	8
9	Q.	You then summarise that you think the consensus from	9
10			
		yesterday was that you don't need to change the	10
		recommendations. Again, I suppose this goes back to	11
12		recommendations. Again, I suppose this goes back to what you were saying earlier about the way in which you	11 12
12 13		recommendations. Again, I suppose this goes back to what you were saying earlier about the way in which you got that assessment of there being a consensus, that was	11 12 13
12 13 14		recommendations. Again, I suppose this goes back to what you were saying earlier about the way in which you got that assessment of there being a consensus, that was your assessment of the way in which the discussions had	11 12 13 14
12 13 14 15	٨	recommendations. Again, I suppose this goes back to what you were saying earlier about the way in which you got that assessment of there being a consensus, that was your assessment of the way in which the discussions had gone; is that right?	11 12 13 14 15
12 13 14 15 16	А.	recommendations. Again, I suppose this goes back to what you were saying earlier about the way in which you got that assessment of there being a consensus, that was your assessment of the way in which the discussions had gone; is that right? That's correct.	11 12 13 14 15 16
12 13 14 15 16 17	A. Q.	recommendations. Again, I suppose this goes back to what you were saying earlier about the way in which you got that assessment of there being a consensus, that was your assessment of the way in which the discussions had gone; is that right? That's correct. We then see, I think, just further discussion of this	11 12 13 14 15 16 17
12 13 14 15 16 17 18		recommendations. Again, I suppose this goes back to what you were saying earlier about the way in which you got that assessment of there being a consensus, that was your assessment of the way in which the discussions had gone; is that right? That's correct. We then see, I think, just further discussion of this issue to try and reach a formal view from the IPC cell;	11 12 13 14 15 16 17 18
12 13 14 15 16 17 18 19	Q.	recommendations. Again, I suppose this goes back to what you were saying earlier about the way in which you got that assessment of there being a consensus, that was your assessment of the way in which the discussions had gone; is that right? That's correct. We then see, I think, just further discussion of this issue to try and reach a formal view from the IPC cell; is that right?	11 12 13 14 15 16 17 18 19
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12 13 14 15 16 17 18 19 20 21	Q.	recommendations. Again, I suppose this goes back to what you were saying earlier about the way in which you got that assessment of there being a consensus, that was your assessment of the way in which the discussions had gone; is that right? That's correct. We then see, I think, just further discussion of this issue to try and reach a formal view from the IPC cell; is that right? That's correct, and I think what that minute draws out is that every nation and the leads, the representative	11 12 13 14 15 16 17 18 19 20 21
12 13 14 15 16 17 18 19 20 21 22	Q.	recommendations. Again, I suppose this goes back to what you were saying earlier about the way in which you got that assessment of there being a consensus, that was your assessment of the way in which the discussions had gone; is that right? That's correct. We then see, I think, just further discussion of this issue to try and reach a formal view from the IPC cell; is that right? That's correct, and I think what that minute draws out is that every nation and the leads, the representative leads from those nations all were given the opportunity	11 12 13 14 15 16 17 18 19 20 21 22
12 13 14 15 16 17 18 19 20 21 22 23	Q.	recommendations. Again, I suppose this goes back to what you were saying earlier about the way in which you got that assessment of there being a consensus, that was your assessment of the way in which the discussions had gone; is that right? That's correct. We then see, I think, just further discussion of this issue to try and reach a formal view from the IPC cell; is that right? That's correct, and I think what that minute draws out is that every nation and the leads, the representative leads from those nations all were given the opportunity to put their position forward. So everybody got the	11 12 13 14 15 16 17 18 19 20 21 22 23
<ol> <li>11</li> <li>12</li> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>21</li> <li>22</li> <li>23</li> <li>24</li> <li>25</li> </ol>	Q.	recommendations. Again, I suppose this goes back to what you were saying earlier about the way in which you got that assessment of there being a consensus, that was your assessment of the way in which the discussions had gone; is that right? That's correct. We then see, I think, just further discussion of this issue to try and reach a formal view from the IPC cell; is that right? That's correct, and I think what that minute draws out is that every nation and the leads, the representative leads from those nations all were given the opportunity	11 12 13 14 15 16 17 18 19 20 21 22

1	Q.	But, of course, you say consensus but that's consensus
2		not including Public Health England who had proposed
3		a precautionary approach of extending FFP3 masks; is
4		that right?
5	Α.	General agreement but, of course, there was the checks
6		and balance in place that, when it went it the UK senior
7		clinical leads to discuss, they could have decided that
8		that was not the right approach and that we should take
9		a precautionary approach, in which case we would have
10		changed the IPC guidance to reflect that.
11	Q.	Well, when you say "clinical leads", do you mean after
12		this discussion, this was escalated to any particular
13		individual?
14	A.	Yeah. So there was a UK senior clinical leads group,
15		which was CMOs and CNOs, and other national clinical
16		directors from across the UK and UKHSA Public Health
17		England were a member of that group.
18	0	Then I think do you remember if this happened, the
	Q.	
19		escalation, after this meeting or after the next
20		meeting? Because I want to go to the next meeting that
21		happened the next day, and that's INQ000398242. Here's
22		page 2 of this.
23		So we've just seen what you were summarising before.
24		You said that you considered there was a consensus. You
25		start this meeting saying, this is three lines down: 138
1	Q.	So if we look at the bottom of the page there, it says
1	Q.	So if we look at the bottom of the page there, it says
2	Q.	Northern Ireland were invited to present their position,
2 3	Q.	Northern Ireland were invited to present their position, and it says:
2 3 4	Q.	Northern Ireland were invited to present their position, and it says: "In the absence of robust evidence to support the
2 3 4 5	Q.	Northern Ireland were invited to present their position, and it says: "In the absence of robust evidence to support the move, CM felt that colleagues might think that they have
2 3 4 5 6	Q.	Northern Ireland were invited to present their position, and it says: "In the absence of robust evidence to support the move, CM felt that colleagues might think that they have not been appropriately protected with what has been
2 3 4 5 6 7	Q.	Northern Ireland were invited to present their position, and it says: "In the absence of robust evidence to support the move, CM felt that colleagues might think that they have not been appropriately protected with what has been previously recommended."
2 3 4 5 6 7 8	Q.	Northern Ireland were invited to present their position, and it says: "In the absence of robust evidence to support the move, CM felt that colleagues might think that they have not been appropriately protected with what has been previously recommended." Two points there: again, does this not come back to
2 3 4 5 6 7 8 9	Q.	Northern Ireland were invited to present their position, and it says: "In the absence of robust evidence to support the move, CM felt that colleagues might think that they have not been appropriately protected with what has been previously recommended." Two points there: again, does this not come back to the issue of requiring robust evidence to justify
2 4 5 6 7 8 9	Q.	Northern Ireland were invited to present their position, and it says: "In the absence of robust evidence to support the move, CM felt that colleagues might think that they have not been appropriately protected with what has been previously recommended." Two points there: again, does this not come back to the issue of requiring robust evidence to justify a change in a way that perhaps wasn't the case earlier
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25 have made us aware of that.

# UK Covid-19 Inquiry

1	Q.	If we can just continue through some of these comments,
2		we can see there's more discussion, PHE are invited to
3		present their position and they then continue to say
4		they're recommending FFP3s in all medium/high-risk
5		pathways, irrespective of AGP. So they're continuing to
6		make that statement.
7		To summarise, in essence, the cell doesn't agree
8		with that decision and the consensus you then take is
9 10		that everyone else, I think, except, predominantly PHE, considers that that shouldn't be the case; is that
10		right?
12	Α.	So there was general agreement, there was a paper
13		produced, which was discussed at the UK IPC senior leads
14		group, and the decision was made there.
15	Q.	The way in which this was resolved though was that the
16	·	IPC cell didn't endorse the PHE position, did it?
17	Α.	I don't think it was about endorsement. We had
18		a discussion, and the consensus agreement; the broad
19		agreement was that we didn't need to the mode of
20		transmission had not changed and, therefore, we weren't
21		going to recommend the use of FFP3 respirators more
22		broadly than what was already stated in the guidance.
23		But what we did do was strengthen some of the
24		information round about risk assessments and pointing to
25		the other precautionary measures to make sure that they
		141
1		controls. If an unacceptable risk of transmission
1 2		controls. If an unacceptable risk of transmission remains following this risk assessment", et cetera,
		•
2		remains following this risk assessment", et cetera,
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~	were being robustly implemented.
Q.	Ultimately, did Public Health England, despite their
	position in this cell meeting, where they are there
	pushing for just to put it in colloquial terms a move
	for FFP3 masks to be used more widely did they
	ultimately still publish the guidance that was proposed
	as a result of the consensus?
Α.	That's correct.
Q.	So they didn't decide to take a different view and
	perhaps overrule the IPC cell but your view is they
	could have done if they had wanted to?
Α.	Correct.
Q.	You mentioned just before the role of risk assessments
	and you spoke about that and you say that they had
	an important role in terms of properly applying
	infection prevention and control measures within
	healthcare settings.
	I want to just quickly look at the guidance that
	directly refers to risk assessments.
	This is INQ000271659 and the fifth page.
	1.0
	At the bottom there it says this is June 2021, to
	be absolutely clear it says:
	"To ensure maximum workplace risk mitigation,
	organisations should undertake local risk assessments
	based on the measures as prioritised in the hierarchy of 142
	172
	we've talked about such as ventilation.
	we've talked about such as ventilation. So by putting different things in place and
	So by putting different things in place and
	So by putting different things in place and different administrative controls, the way that people
	So by putting different things in place and different administrative controls, the way that people work, and trying to maximally mitigate the risk for all
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(36) Pages 141 - 144

1 "If an unacceptable risk of transmission remains following the risk assessment, it may be necessary to consider the extended use of RPE for patient care in specific situations. The risk assessment should include an evaluation of the ventilation being a measure that was relevant to airborne transmission but certainly in at least a paper from SAGE they considered it was only that mode of transmission, because it's directly pointing to ventilation as a measure that might need to be taken? A. So local – sorry, do you mean in terms of the hierarchy of controls? A. Is olocal – sorry, do you mean in terms of the hierarchy of controls? A. Is olocal – sorry, do you mean in terms of the hierarchy of controls? A. I would say not specifically. I think the hierarchy of controls and risk assessment that looks at ventilation, was that because there was, by this stage, in June 2021, an acceptance that there was increased risk of the virus existing in the air? A. I would say not specifically. I think the hierarchy of controls and risk assessments are something that should be inherent in healthcare organisations. No healthcare facility is free of risk and therefore risk assessment and local risk assessments are vital to adapt infection prevention and control measures to specific environments 142 A. I don't think it's directing them to do it on their own. I think there is guidance there to do it. Risk assessment is something that is, you know, ingrained within healthcare systems, it's set out in the Health and Social Care Act for infection prevention – the code for infection prevention control risk assessment is fundamental within all of that and in the day-to-day business and work of organisations. What we did do, recognising that it seemed to be a challenge, was we developed tools for various different settings, be it acute care settings, GP practices, dental practices, to support organisations where they were struggling or where they had outbreaks of infection to help them undertake some of the risk assessment and put mit			
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19 Inquiry	16 September 2024
1	and specific healthcare settings, so you're looking to
2	identify what are the unique infection risks in this
3	area and then ensure compliance with the recommendations
4	and guidance and that those are being reliably applied.
5	<b>Q.</b> In terms of directing the need for risk assessments, was
6	this something that was directed at organisations,
7	employers or individual healthcare workers?
8	<b>A.</b> At different levels I mean, for employers, the Health
9	and Social Care Act for healthcare premises includes
10	within that risk assessments. I mean, our clinicians do
11	risk assessments probably every day when they are seeing
12	their patients and managing their patients. I think
13	risk assessment of the environment will include many
14	people. It's an employer's responsibility to ensure
15	health and safety in the workplace. So the risk
16	assessments would be carried out by a multidisciplinary
17	team of individuals including ventilation engineers and
18	ensuring that that approach was taken.
19	<b>Q</b> . The Inquiry's heard some evidence and has received some
20	evidence that there are challenges in terms of actually
21	conducting risk assessments and that sometimes guidance
22	that requires an additional step to be taken in terms of
23	then doing a risk assessment can be difficult for
24	healthcare workers to actually implement. Do you accept
25	that directing an organisation to do a risk assessment 146
1	and one of the things the Inquiry has heard about is the
2	disproportionate infection rates among some healthcare
3	workers, including those from ethnic minorities. This
4	wasn't a particular risk assessment that was specific to
5	them or those particular workers or any particular
6	workers, was it; it was a general risk assessment?
7	A. A general risk assessment.
8	Q. The IPC cell didn't, did it, delve into providing
9	specific advice about how to account for specific
10	inequalities or anything like that, that wasn't the
11	remit of the IPC cell, was it?
12	<b>A.</b> No, but we did, with the guidance, what we did do was
13	a complete Equality Diversity Impact Assessment,
14	an EHIA they call it Health Impact Assessment for
15	the guidance initially and then we would review that
16	when we were updating the guidance documents.
17	<b>MR FIREMAN:</b> Thank you, I think that might be an appropriate
18	time.
19	LADY HALLETT: Certainly, I shall return at 3.30.
20	(3.15 pm)
21	(A short break)
22	(3.30 pm)
23	I ADV HALLETT: Mr Eireman

- 23 LADY HALLETT: Mr Fireman.
- 24 MR FIREMAN: Thank you.
- 25 Dr Ritchie, can I just clarify something on the 148

		151			152
25		"A respirator with an assigned protection factor	25		as "wholly" and then to remove it entirely?
24		bit, "A respirator". It says:	24	Q.	Simple question: was it confusing to use language such
23		could find that yes. If we could just the top	23	Α.	That's correct.
22		And if we look at the next paragraph, please, if we	22		Covid-19 patients; is that right?
21		transmission and use of RPE as follows"	21		and so you should use a respirator when caring for
20		" removing the word 'wholly' in relation to	20		interpreted that Covid was spread by the airborne route
19		that were made, including:	19		said "spread by the airborne route" and it could be
18		Then it goes on to describe other additional edits	18		explains that this caused confusion because then it just
17		correct [route]."	17	Q.	But by removing the word "wholly", Professor Hopkins
16		local area. Staff should be provided with training on	16	Α.	Correct.
15		infection/new SARS-CoV-2 variants of concern in the	15		supposed to use a respirator?
14		in the area, operational capacity, and prevalence of	14		be the case, interpreting this guidance, that you're
13		assessment should include evaluation of the ventilation	13		wholly spread by the airborne route, and so it wouldn't
12		should be available to all relevant staff. The risk	12		point, I don't think, that it was said that it was
11		" where a risk assessment indicates it, RPE	11	Q.	So with respect to Covid-19, it wasn't the case at any
10		the IPC guidance where it said:	10	Α.	Yes.
9		So here she's describing a change that was made to	9		by the airborne route; is that right?
8		It's INQ000410867, and it's paragraph 353.	8		a suspended infection that is from a virus spread wholly
7		we can go to that.	7		use a respirator where you're caring for a patient with
6		but it's cited within Professor Hopkins' statement, if	6		So it previously says, does it not, that you should
5		within healthcare guidance, and just taking an example,	5		" by the airborne route"
4		healthcare guidance, and the language that was used	4		And then what was "wholly" removed:
3		Can I ask you about the changes to guidance,	3		a suspected or confirmed infection spread"
2	Q.		2		must be worn by staff when: caring for patients with
1	Α.	I'm not sure that I can answer that.	1		(APF) 20, that is, an FFP3 respirator (or equivalent),
20		149	20		150
24 25		in a heavy droplet there is likely to be more viral particles, whereas in a finer droplet it's going to dry	24 25		droplets, would you recommend that FFP3 respirators be used more widely, if you're wrong about your belief?
23 24	Α.	My understanding would be that in a larger droplet and	23 24		that there is a higher viral load in aerosols than in
22	٨	expert?			phrase that brilliantly, but if in fact it's the case
21 22		than an aerosol, given you're not a physical scientist	21 22	Q.	
20		droplet contained a higher level of infectious particles	20	~	protection is FRSMs.
19 20	Q.		19		separate things. So the guidance currently for droplet
18	A.	Yes.	18	Α.	I'm understanding then it's almost confusing two
17 10	Q.	It's an area where you disagree, though, is it?	17		respirators?
16 17	0	scientist. It's an area where you disagree, though is it?	16 17		influence the guidance as to when to use FFP
15 16	Α.	I respect that opinion and I am not an aerobiologist or	15		particles are in aerosols to a higher degree, would that
14 15		found in fine aerosols?	14		fact they are in aerosols to a higher infectious
13		he considers the majority of exhaled viruses are in fact	13		you would give in terms of use of respirators, if in
12	ų.	Are you aware that Professor Beggs told the Inquiry that	12		of viral load, would that influence the guidance that
11	A.	Correct.	11		the highest number of viral load, or the highest level
	٨	in a heavy droplet than there will be in an aerosol?			
9 10		-	9 10		them, and in fact it's the case that aerosols contain
8 9		that it's more likely that there will be more viral load	8 9	ω.	particles contain a greater amount of viral load in
8		in the air. Can I clarify, that's your view, is it,	8	Q.	
7		quickly rather than fine aerosols that remain suspended	7		measures.
6		that comes out of someone's mouth that will fall quite	5 6		and the environment is just as important as other
4 5		that it's likely more viral load is in a heavy droplet	4 5		on surfaces, it's important that cleaning of equipment
4		talked about viral load is also important, and you said	3 4		droplets and aerosols that, you know, do finally settle
2 3		evidence, when you were talking about the need to control environmental factors as well as others, and you	2 3		kind of infection subsequently is less so. But I think going back to the other environmental factors, those
1		basis of evidence you gave earlier on. You said in your			out quite quickly, so the viability of that causing any
1		basis of ovidence you gave parlier on You said in your	1		out quite quickly, so the visbility of that equaing any

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## UK Covid-19 Inquiry

1	Α.	I accept that it probably was confusing. Again, that
2		was wording, "wholly", being a predominant mode that we
3		had used in earlier guidance. We had feedback from
4		frontline staff, other stakeholders saying that that
5		word wasn't helpful, so in response to that we removed
6		it, and then that caused more confusion.
7		So, yes, I accept that terminology/language, is
8		something having a standardised and consistent
9		language base will be important going forward,
10		absolutely.
11	Q.	I think in fact what happened was the word
12		"predominantly" was in fact added in to replace the fact
13		that there was no word, but "predominantly" I mean,
14		how did you expect a healthcare worker to know whether
15		or not Covid-19 was spread predominantly by the airborne
16		route? Is it for them if the guidance doesn't
17		expressly say that it is, how are they to know whether
18		or not it is?
19	Α.	Well, I don't think the guide the guidance didn't
20		express that it was predominantly spread by the airborne
21		route, so it did cover other contact measures, so the
22		guidance wasn't just about the airborne route, the
23		guidance covered contact, droplet and airborne. So
24		invariably those transmission routes do not happen in
25		isolation. And we talked earlier just about the
20		153
1		UK IPC guidance.
		on in o guidance.
2	0	Okay Can you then just generally speaking talking
2	Q.	Okay. Can you then just generally speaking, talking
3	Q.	about the fact that in guidance and healthcare-wide
3 4	Q.	about the fact that in guidance and healthcare-wide guidance generally, the phrases such as "wholly spread
3 4 5	Q.	about the fact that in guidance and healthcare-wide guidance generally, the phrases such as "wholly spread by the airborne route", "predominantly spread by the
3 4 5 6	Q.	about the fact that in guidance and healthcare-wide guidance generally, the phrases such as "wholly spread by the airborne route", "predominantly spread by the airborne route" and no phrases at all about how it was
3 4 5 6 7	Q.	about the fact that in guidance and healthcare-wide guidance generally, the phrases such as "wholly spread by the airborne route", "predominantly spread by the airborne route" and no phrases at all about how it was spread were used understand how that of course caused
3 4 5 6 7 8	Q.	about the fact that in guidance and healthcare-wide guidance generally, the phrases such as "wholly spread by the airborne route", "predominantly spread by the airborne route" and no phrases at all about how it was spread were used understand how that of course caused issues in terms of interpretation with respect to
3 4 5 6 7 8 9		about the fact that in guidance and healthcare-wide guidance generally, the phrases such as "wholly spread by the airborne route", "predominantly spread by the airborne route" and no phrases at all about how it was spread were used understand how that of course caused issues in terms of interpretation with respect to Covid-19?
3 4 5 6 7 8 9 10	А.	about the fact that in guidance and healthcare-wide guidance generally, the phrases such as "wholly spread by the airborne route", "predominantly spread by the airborne route" and no phrases at all about how it was spread were used understand how that of course caused issues in terms of interpretation with respect to Covid-19? Sure.
3 4 5 6 7 8 9 10 11		about the fact that in guidance and healthcare-wide guidance generally, the phrases such as "wholly spread by the airborne route", "predominantly spread by the airborne route" and no phrases at all about how it was spread were used understand how that of course caused issues in terms of interpretation with respect to Covid-19? Sure. Do you have any thoughts about how to avoid that sort of
3 4 5 6 7 8 9 10 11 11	A. Q.	about the fact that in guidance and healthcare-wide guidance generally, the phrases such as "wholly spread by the airborne route", "predominantly spread by the airborne route" and no phrases at all about how it was spread were used understand how that of course caused issues in terms of interpretation with respect to Covid-19? Sure. Do you have any thoughts about how to avoid that sort of thing in the future?
3 4 5 6 7 8 9 10 11 12 13	А.	about the fact that in guidance and healthcare-wide guidance generally, the phrases such as "wholly spread by the airborne route", "predominantly spread by the airborne route" and no phrases at all about how it was spread were used understand how that of course caused issues in terms of interpretation with respect to Covid-19? Sure. Do you have any thoughts about how to avoid that sort of thing in the future? I think that it's agreeing the terminology and the
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3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	A. Q.	about the fact that in guidance and healthcare-wide guidance generally, the phrases such as "wholly spread by the airborne route", "predominantly spread by the airborne route" and no phrases at all about how it was spread were used understand how that of course caused issues in terms of interpretation with respect to Covid-19? Sure. Do you have any thoughts about how to avoid that sort of thing in the future? I think that it's agreeing the terminology and the definitions and being as clear and give clarity as much as we possibly can going forward in guidance documents. As I said, earlier, WHO have made a start on that by their published document on airborne transmission risk where they describe new terminology. I don't believe that that has been signed up to by the UK as yet, but I do think it's important that the national and international guidance is aligned with the language that we use, because it's important that, you know, healthcare workers understand what they need to do to
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3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	A. Q.	about the fact that in guidance and healthcare-wide guidance generally, the phrases such as "wholly spread by the airborne route", "predominantly spread by the airborne route" and no phrases at all about how it was spread were used understand how that of course caused issues in terms of interpretation with respect to Covid-19? Sure. Do you have any thoughts about how to avoid that sort of thing in the future? I think that it's agreeing the terminology and the definitions and being as clear and give clarity as much as we possibly can going forward in guidance documents. As I said, earlier, WHO have made a start on that by their published document on airborne transmission risk where they describe new terminology. I don't believe that that has been signed up to by the UK as yet, but I do think it's important that the national and international guidance is aligned with the language that we use, because it's important that, you know, healthcare workers understand what they need to do to

1		environmental impact, that if you've got droplet spread
2		or airborne spread you invariably will have contact
3		spread as well, if you don't keep the environment clean.
4		So it's a very complex number of procedures, so the
5		standard infection control procedures and the
6		transmission-based precautions.
7	Q.	What happens is that there's the the chain of events,
8		as I understand it, is it goes from in fact it might
9		help if we look at INQ000502072, which is a document
10		that's been produced by the Inquiry's trio of experts,
11		Shin, Gould, Warne, who summarise changes to the
12		quidance.
13		If we just look at what happens afterwards, if we go
14		down and look at 15 March 2020, it says that what
15		happened was it was then changed to saying
16		"predominantly by the airborne route".
17		So if I can just summarise this, what happened is it
18		started off from January 2020 saying "wholly spread by
19		the airborne route", it then changed to be removed and
20		there was no word at all there, it just said "spread by
20		the airborne route", and it then said "predominantly
21		spread by the airborne route". Is that right in terms
22		of the chronology?
23 24	A.	So just to clarify, so the highlighted 15 March document
	А.	
25		is a UKHSA guidance document. I don't think that's the 154
1		of the guidance making clear exactly how it is
2		considered that a virus is spread so that when
3		interpreting whether or not something is or isn't spread
3 4		interpreting whether or not something is or isn't spread by the airborne route we know what the guidance says
3 4 5		interpreting whether or not something is or isn't spread
3 4	A.	interpreting whether or not something is or isn't spread by the airborne route we know what the guidance says
3 4 5		interpreting whether or not something is or isn't spread by the airborne route we know what the guidance says about how the virus is spread? Yes. FIREMAN: Thank you.
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3 4 5 6 7		interpreting whether or not something is or isn't spread by the airborne route we know what the guidance says about how the virus is spread? Yes. FIREMAN: Thank you.
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<ol> <li>3</li> <li>4</li> <li>5</li> <li>6</li> <li>7</li> <li>8</li> <li>9</li> <li>10</li> <li>11</li> <li>12</li> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> </ol>	MR	interpreting whether or not something is or isn't spread by the airborne route we know what the guidance says about how the virus is spread? Yes. FIREMAN: Thank you. Those are all my questions, my Lady. Questions from THE CHAIR DY HALLETT: Just before we turn to the core participants. Going back to the routes of transmission, Dr Ritchie, you've been asked a little about this, but where there is uncertainty, would you agree that the precautionary principle should be applied? I do agree that the precautionary principle should be applied. That is a number of measures, in its broadest term, so again I don't think it's just one thing. So the silver bullet of the FFP3 is the answer and the precautionary measure to SARS-CoV-2, I think there are multiple other interventions from an infection
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<ol> <li>3</li> <li>4</li> <li>5</li> <li>6</li> <li>7</li> <li>8</li> <li>9</li> <li>10</li> <li>11</li> <li>12</li> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>21</li> <li>22</li> <li>23</li> <li>24</li> </ol>	MR LAI	interpreting whether or not something is or isn't spread by the airborne route we know what the guidance says about how the virus is spread? Yes. FIREMAN: Thank you. Those are all my questions, my Lady. Questions from THE CHAIR DY HALLETT: Just before we turn to the core participants. Going back to the routes of transmission, Dr Ritchie, you've been asked a little about this, but where there is uncertainty, would you agree that the precautionary principle should be applied? I do agree that the precautionary principle should be applied. That is a number of measures, in its broadest term, so again I don't think it's just one thing. So the silver bullet of the FFP3 is the answer and the precautionary measure to SARS-CoV-2, I think there are multiple other interventions from an infection prevention and control perspective that need to be put in place, because none of these transmission routes function in isolation or act in isolation. DY HALLETT: I understand that. It's just that, if you

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## UK Covid-19 Inquiry

1	know yet that the pathogen could be airborne, aerosol	
2	sorry, aerosol we say aerosol because of the	
3	confusing nature of the HCID classification.	
4	So you have a possibility it could be aerosol.	
5	Amongst the package of measures, if you're going to	
6	exercise a precautionary principle, wouldn't it be best	
7	to advise the highest level of face mask protection that	
8	is reasonable, in other words the FFP3? Wouldn't it be	
9	best to advise the highest reasonable measure of face	
10	mask?	
11	A. But not every situation is the same, so in those higher	
12	risk areas then where people are exposed to aerosol or	
13	aerosols, so you need aerosol precautions, then	
14	absolutely, but in other given routine care, when the	
15	predominant mode was understood to be droplet and it	
16	could be aerosol, if aerosol-generating procedures were	
17	performed, then FFP3 respirators might not be required.	
18	And I think this goes back to risk assessment, it's	
19	putting in place things that are risk based and	
20	proportionate to keep healthcare workers safe and	
21	patients safe, but FFP3 respirators are not comfortable	
22	to wear, and if you in setting that position with	
23	FFP3 respirators, it's then saying, well, when do you	
24	step down from that? And we're now living with Covid-19	
25	as well.	
	157	
1	"Actually, there's science there or there's evidence	
2	there or we are telling you as experts, IPC cell, that	
3	you are wrong", we would have moved to a different	
4	position.	
5	LADY HALLETT: In December 2020 when you had that meeting to	
6	which Mr Fireman took you, you had advice from the	
7	Public Health England representatives on the cell that	
8	the I'm going to call them "F3 respirators" should be	
9	used, and that advice was not accepted, the consensus	
10	that the cell reached was not to go with that	
11	recommendation. I mean, Public Health England has some	
12	highly qualified scientists who work for it, doesn't it,	
13	or it did have some highly qualified scientists; on what	
14	basis did the cell not accept that advice from Public	
15	Health England?	

	which wir Fireman took you, you had advice from the	6
	Public Health England representatives on the cell that	7
	the I'm going to call them "F3 respirators" should be	8
	used, and that advice was not accepted, the consensus	9
	that the cell reached was not to go with that	10
	recommendation. I mean, Public Health England has some	11
	highly qualified scientists who work for it, doesn't it,	12
	or it did have some highly qualified scientists; on what	13
	basis did the cell not accept that advice from Public	14
	Health England?	15
A	. So we had a discussion across all four nations. If	16
	Public Health England had felt strongly that we, again,	17
	were wrong with the broad consensus that we had come out	18
	with, and that the position statement that we put	19
	together with recommendations of not to move to FFP3	20
	respirators for all, they could, as the lead	21
	organisation for infectious diseases in England, have	22
	trumped our decision and said "We're moving", and that	23
	consensus statement and position statement that the cell	24
	put to the UK senior leads group has Public Health 159	25

1		So I think there are many, there are multiple
2		factors that need to be considered rather than just
3		moving to that position, in the absence of that evidence
4		that it is airborne to put everyone in an FFP3
5		respirator, or all our healthcare workers.
6	LA	<b>DY HALLETT:</b> But the premise of my question was there is
7		uncertainty, so the uncertainty means we don't yet know
8		the source of transmission, and what I don't really
9		understand is that the IPC cell seems to have become
10		wedded to the idea that it was droplet and hadn't really
11		thought about whether they should be exercising the
12		precautionary principle on the basis it might be
13		aerosol.
14	Α.	But I don't the IPC cell, with respect, I don't think
15		was wedded to the idea. So initially when it was high
16		consequence it was declassified, so we were using known
17		established frameworks. If we had been advised by the
18		scientific advisers from SAGE, from NERVTAG, that there
19		was a potential of airborne and that actually we needed
20		to move, then we would have moved to that position. So
21		our responsibility and our role and function in the IPC
22		cell was to translate the scientific evidence and
23		advice, the outputs from all of those scientific groups
24		into practical IPC guidelines. If our senior clinical
25		leaders had not agreed with that position and said
		158
1		England, UKHSA representation on that group.
2		That document went there, it was discussed and it
3		was approved. Had they not approved it and come back
1		and said "Actually you duys are wrond", we would have

3		was approved. Had they not approved it and come back
4		and said "Actually you guys are wrong", we would have
5		changed our guidance. So we weren't there building the
6		science, we were taking the outputs and the science and
7		translating that into what would be, as much as
8		possible, and I accept the terminology, but into
9		practical guidance for frontline healthcare workers to
10		put into action.
11	LAI	<b>DY HALLETT:</b> On that point, can I go back to something
12		again Mr Fireman asked you about, which is membership of
13		the cell. Given you were trying to interpret what was
14		at times quite complex science and some top notch
15		experts on SAGE, and the like, and NERVTAG advising you,
16		do you think now, looking back, that it would have been
17		better if you had had different experts on the cell?
18	Α.	Potentially now, in hindsight, there is always room for
19		improvement and I think that goes back to what
20		I initially said about, had I come in and there had been
21		a structure, it would have been helpful to know where
22		everyone was placed in their roles and functions.
23		I think, given the role that we were performing at
24		that time, we were senior infection prevention and
25		control clinicians and our role was to translate that

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## UK Covid-19 Inquiry

1	evidence into IPC practical guidance. I think we were	1
2	qualified to do that, and we had our senior clinicians	2
3	who would have advised us, had that not been right, to	3
4	change that guidance. But, yes, in future, I think it	4
5	would be really helpful to have more of a structured:	5
6	what should the membership look like, where does the	6
7	evidence come from. So yeah, lesson learned, thank you.	7
8	LADY HALLETT: Thank you.	8
9	Finally from me, as you may know, there's one issue	9
10 11	that's particularly concerning to a number of families,	10 11
12	bereaved, pregnant women, and the like, about visiting	11
12	restrictions to hospitals. They obviously caused really serious concern and, given that visiting restrictions	12
13	were imposed in the name of infection prevention and	13
15	control, did the cell get involved with visiting	14
16	restrictions?	16
17	A. No.	10
18	LADY HALLETT: Not at all?	18
19	A. We would have been asked and I wasn't personally	19
20	asked, but colleagues in the national IPC team would	20
21	have been asked to comment possibly on those visiting	_== 21
22	guideline restriction document, but it wasn't a document	22
23	that came from the IPC cell.	23
24	LADY HALLETT: Is there a reason for that, given, as I say,	24
25	they were imposed in the name of infection control?	25
	161	
1	You can see a chart on this page, which is headed "[PPE]	1
2	suspected/confirmed Covid-19 patient/individual". Then	2
2 3	suspected/confirmed Covid-19 patient/individual". Then in the top left-hand corner, you can see:	2 3
2 3 4	suspected/confirmed Covid-19 patient/individual". Then in the top left-hand corner, you can see: "PPE required by type of transmission/exposure."	2 3 4
2 3 4 5	suspected/confirmed Covid-19 patient/individual". Then in the top left-hand corner, you can see: "PPE required by type of transmission/exposure." Then if you look in the bottom row, bottom left,	2 3 4 5
2 3 4 5 6	suspected/confirmed Covid-19 patient/individual". Then in the top left-hand corner, you can see: "PPE required by type of transmission/exposure." Then if you look in the bottom row, bottom left, there is a reference to airborne PPE, and then there's	2 3 4 5 6
2 3 4 5 6 7	suspected/confirmed Covid-19 patient/individual". Then in the top left-hand corner, you can see: "PPE required by type of transmission/exposure." Then if you look in the bottom row, bottom left, there is a reference to airborne PPE, and then there's a sentence at the end:	2 3 4 5 6 7
2 3 4 5 6 7 8	suspected/confirmed Covid-19 patient/individual". Then in the top left-hand corner, you can see: "PPE required by type of transmission/exposure." Then if you look in the bottom row, bottom left, there is a reference to airborne PPE, and then there's a sentence at the end: "If an unacceptable risk of transmission remains	2 3 4 5 6 7 8
2 3 4 5 6 7 8 9	suspected/confirmed Covid-19 patient/individual". Then in the top left-hand corner, you can see: "PPE required by type of transmission/exposure." Then if you look in the bottom row, bottom left, there is a reference to airborne PPE, and then there's a sentence at the end: "If an unacceptable risk of transmission remains following rigorous application of the hierarchy of	2 3 4 5 6 7 8 9
2 3 4 5 6 7 8 9	suspected/confirmed Covid-19 patient/individual". Then in the top left-hand corner, you can see: "PPE required by type of transmission/exposure." Then if you look in the bottom row, bottom left, there is a reference to airborne PPE, and then there's a sentence at the end: "If an unacceptable risk of transmission remains following rigorous application of the hierarchy of control."	2 3 4 5 6 7 8 9 10
2 3 4 5 6 7 8 9 10 11	suspected/confirmed Covid-19 patient/individual". Then in the top left-hand corner, you can see: "PPE required by type of transmission/exposure." Then if you look in the bottom row, bottom left, there is a reference to airborne PPE, and then there's a sentence at the end: "If an unacceptable risk of transmission remains following rigorous application of the hierarchy of control." The RCN is concerned that it wasn't appropriate to	2 3 4 5 6 7 8 9 10 11
2 3 4 5 6 7 8 9 10 11 12	suspected/confirmed Covid-19 patient/individual". Then in the top left-hand corner, you can see: "PPE required by type of transmission/exposure." Then if you look in the bottom row, bottom left, there is a reference to airborne PPE, and then there's a sentence at the end: "If an unacceptable risk of transmission remains following rigorous application of the hierarchy of control." The RCN is concerned that it wasn't appropriate to apply the hierarchy of control in this type of	2 3 4 5 6 7 8 9 10 11 12
2 3 4 5 6 7 8 9 10 11 12 13	suspected/confirmed Covid-19 patient/individual". Then in the top left-hand corner, you can see: "PPE required by type of transmission/exposure." Then if you look in the bottom row, bottom left, there is a reference to airborne PPE, and then there's a sentence at the end: "If an unacceptable risk of transmission remains following rigorous application of the hierarchy of control." The RCN is concerned that it wasn't appropriate to apply the hierarchy of control in this type of healthcare setting, given the importance of having to	2 3 4 5 6 7 8 9 10 11 12 13
2 3 4 5 6 7 8 9 10 11 12	suspected/confirmed Covid-19 patient/individual". Then in the top left-hand corner, you can see: "PPE required by type of transmission/exposure." Then if you look in the bottom row, bottom left, there is a reference to airborne PPE, and then there's a sentence at the end: "If an unacceptable risk of transmission remains following rigorous application of the hierarchy of control." The RCN is concerned that it wasn't appropriate to apply the hierarchy of control in this type of healthcare setting, given the importance of having to provide care which meets individual patient need. In	2 3 4 5 6 7 8 9 10 11 12
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	suspected/confirmed Covid-19 patient/individual". Then in the top left-hand corner, you can see: "PPE required by type of transmission/exposure." Then if you look in the bottom row, bottom left, there is a reference to airborne PPE, and then there's a sentence at the end: "If an unacceptable risk of transmission remains following rigorous application of the hierarchy of control." The RCN is concerned that it wasn't appropriate to apply the hierarchy of control in this type of healthcare setting, given the importance of having to provide care which meets individual patient need. In the light of that, our question is whether use of this	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	suspected/confirmed Covid-19 patient/individual". Then in the top left-hand corner, you can see: "PPE required by type of transmission/exposure." Then if you look in the bottom row, bottom left, there is a reference to airborne PPE, and then there's a sentence at the end: "If an unacceptable risk of transmission remains following rigorous application of the hierarchy of control." The RCN is concerned that it wasn't appropriate to apply the hierarchy of control in this type of healthcare setting, given the importance of having to provide care which meets individual patient need. In the light of that, our question is whether use of this language, of the hierarchy of control, created a risk that decisions about granting access to PPE would be made wrongly and, in particular, would allow the rationing of PPE?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
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У	16 September 2024
Α.	Many things are imposed in the name of IPC and, you
	know, it's trying to balance protecting healthcare
	workers and staff from infection and being proportional,
	in that respect. Not always an easy balance to make
	and, hence, the risk assessments are so important in
	situations like that because local organisations have
	unique situations and can make decisions based on, you
	know, what they see and what they think will be right for their organisation.
LA	DY HALLETT: Particular patients may have particular
	needs, like a disabled patient
Α.	Sure, absolutely.
LA	DY HALLETT: and they need a support
Α.	Agreed.
LA	DY HALLETT: person.
	Right, Ms Morris, I think you have a couple of
	questions for the Royal College of Nursing?
	Questions from MS MORRIS KC
MS	MORRIS: Thank you, my Lady.
	Good afternoon, Doctor.
	Could we have up, please, document INQ000271659 and,
	within that document, page 36. This document represents
	IPC recommendations produced by Public Health England.
	We don't need to look at it but the preceding page makes
	it clear that this table relates to healthcare settings.
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	individual organisation identifying unique risks for
	their staff in that situation and making a decision
	based on that risk assessment, and an individual risk
	assessment as well, if there were particular healthcare
	workers who felt that they were going to be at risk,
	then having those appropriate occupational health
	assessments.
Q.	But do you accept that sticking with, say, trust level
α.	risk assessment, that language left it open to a trust
	to say, I don't know, "We've got all the windows open,
	we've taken all these other steps, therefore we're not
	going to provide you with PPE"?
Α.	I don't think I can answer that question. I mean,
	I think organisations are, they should you know,
	doing risk assessments all of the time, and the
	hierarchy of controls is something that the Health and
	Safety Executive you know, the Health and Safety at
	Work Act, it's not a new document. So, yeah, I don't
	you know, trusts were able to make those individual risk
	assessments and I would like to think that they made
	them appropriately and did not withhold PPE from
	individuals who were risk assessed to need to higher
~	level of PPE.
Q.	So turning to my second question, we heard from the

- 24  $\ensuremath{\textbf{Q}}\xspace.$  So turning to my second question, we heard from the
- 25 Scottish TUC this morning the view that nurses should 164

6

7

1		have been able to make their own decisions as to whether
2		and what PPE was required by them in a particular
3		setting, and that PPE should have been provided to them
4		on that basis. Do you agree or disagree with that
5		proposition?
6	Α.	I think it's challenging when selecting items of PPE on
7		an individual basis is down to personal preference,
8		because I think healthcare workers need to understand
9		the reasons for wearing that PPE and knowing when to
10		wear it, for how long, all of those reasons. So I think
11		those clinicians should be involved in the discussions
12		around risk assessments and, you know, that
13		an organisation or a department come to an agreement
14		about what their risk assessment is and what the level
15		of PPE is going to be, but not down at an individual
16		personal level, because that could land us in places
17		where I choose not to wear it, and put myself at risk,
18		and then someone else chooses to wear it.
19		So I think the personal preference route is quite
20		difficult and it's not easy to navigate, but I do agree
21		that within certain within settings or units then
22		clinicians should be involved in the discussions with
23		regards to what PPE and understand the risks that are in
24		that area.
25	MS	MORRIS: Thank you very much.
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1	a differen	t country. Th	nat said, the	national in	lection

- 2 control manual for Scotland was something that was added
- 3 as an ambition into the 2019 five-year UK antimicrobial
- 4 resistance national action plan that England would adopt
- 5 the manual, and we have indeed done so.
- 6 Q. That's helpful. It isn't in fact an answer to the
- 7 question. But would you agree with the summary of the
- 8 experts that I anticipate will give this on Thursday, 9
- the IPC experts, that because there was no national
- 10 manual, that the IPC guidance in England pre-pandemic 11
- was in fact fragmented, it came -- the IPC guidance that 12 people were following or looked to follow came from
- 13 professional societies with an expertise in infection or
- 14 professional bodies or PHE, there was a fragmented 15 picture?
- A. I can't comment on that, I wasn't working in NHS England 16 17 at the time
- Okay, but you arrived in April, what did you find? You 18 Q. didn't find a national manual, so the guidance that was 19 20 there you would be sighted on, you would look at, it was 21 fragmented; is that right?
- 22 Α. So at the time that I arrived we were working on UK
- 23 guidance for SARS-CoV-2, Covid-19, so I suppose I wasn't
- 24 looking at the wider IPC guidance for other specific
- 25 pathogens that was available, and I -- to currently

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- LADY HALLETT: Thank you, Ms Morris. 1
- 2 Mr Weatherby. Questions from MR WEATHERBY KC 3
- MR WEATHERBY: Thank you. 4
- 5 Dr Ritchie, I've got a very short number of
  - questions. I'm asking on behalf of Covid Bereaved
  - Families for Justice UK, which includes families
- bereaved from nosocomial infection and also healthcare 8 q workers
- 10 You've touched twice, I think, on my first point,
- 11 which is that when you arrived at NHS England in
- April 2020, you found that there was no national IPC 12
- 13 manual and there was no national England IPC team; is
- 14 that right?
- 15 A. That's correct.
- 16 Q. Obviously it wasn't your fault that there was neither of
- 17 those, but did you learn, in the course of the handover
- 18 or the arrival, why that -- or those gaps had been?
- 19 I'm not aware what the rationale for that was. Α.
- 20 Q. Yes. But obviously you had come from Scotland where you
- 21 had had a similar role in relation to the manual, and
- 22 you had a national manual there. Did you not ask your
- 23 colleagues as to why the structures simply weren't
- 24 there?
- 25 Α. I was working in a different NHS organisation in 166
- 1 and -- then and now, Public Health England are the 2 advisory body on specific pathogen guidance. 3 Q. Okay. But the work of the cell and your subsequent work 4 on Covid from when you arrived sat on top of the 5 existing IPC guidance that was available, didn't it? It 6 was complementary to the general IPC guidance --7 Α. Yes. Q. -- that was there. 8 9 Are you able to say what impact the lack of 10 a national manual, what I've referred to, a fragmentation of IPC guidance, what effect that had on 11 12 your work in terms of Covid? 13 Α. I think that's why we used the foundation of the 14 Scottish manual in terms of standard infection control 15 precautions and the basics round transmission-based precautions and used that as a foundation to base the 16 SARS-CoV-2 Covid-19 guidance on going forward, and then 17 18 as we developed that guidance, as that guidance evolved 19 throughout the pandemic, we were taking the appropriate 20 scientific advice. 21 So Scotland had effectively had the lead on it, so, in Q. 22 the absence of joined-up national guidance in England, 23 you looked to the work that you had done in Scotland; is 24 that a fair summary?
- 25 Α. To give us an initial foundation.

1	Q.	Now, very quickly the second area, would you agree that
2		traditional views about IPC were firmly ingrained and
3		hard to change?
4	Α.	I disagree. I think there was established modes of
5		transmission that were set out/defined in international
6		and national guide pre-pandemic guidance across many
7		countries, the WHO. I don't think we were wedded to
8		that. Had the science and our expert colleagues,
9		science colleagues, told us that there was a change then
10		we would have followed.
11	Q.	All right, I've lifted that as a quote from the expert
12		report, so we can go back and ask them when they give
13		their evidence on Thursday.
14		When Professor Noakes, who was referred to earlier,
15		a bioengineering professor, has given evidence, both in
16		Module 2 and in her witness statement, she referred to
17		a simplistic distinction in healthcare between droplet
18		and airborne, aerosol, respiratory virus transmission,
19		and gave the view that it was persistent because it had
20		been taught for years and ran through IPC guidance.
21		Would you agree with that, that there was this
22		hardwired view which just kept being taught and that's
23		one of the reasons that it persisted?
24	Α.	I don't think it's a hardwired view. I think infection
25		prevention and control is very much down the pecking 169
1	1 4	DY HALLETT: Thank you, Mr Weatherby.
2		I think it's now Mr Odogwu. I'm so sorry,
3		Ms Banton. Well, I was told it was Mr Thomas, so there
4		We go.
5		Questions from MS BANTON
6	мс	<b>BANTON:</b> I apologise, my Lady, there has been some
7	WI3	movement this afternoon. Thank you.
, 8		Dr Ritchie, I represent FEMHO, which is the
9		Federation of Ethnic Minority Healthcare Organisations.
10		We advocate for healthcare workers from ethnic minority
10		we advocate for healthcare workers norn ethnic millionly

- backgrounds who were disproportionately impacted by the
  pandemic, and those concerns include surrounding
  personal protective equipment and fit.
  If I may ask a question regarding your statement,
  you mentioned the recommendation of fluid-resistant
- surgical masks -- this is in footnote 3, paragraph 16 of
  your statement -- for GPs triaging suspected Covid-19
  cases, despite evidence showing a higher risk of
  infection when compared to FFP3 masks, especially for
  those who failed fit tests, including ethnic minority
  staff.
- So, given this evidence, why did you believe that
   recommending FRSMs provided providing sufficient
   protection at the time, particularly for those facing
   fit testing challenges, such as we've heard of before?

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- order in terms of research and good research, and 1 2 I respect Professor Noakes' position. I accept the 3 science is far from settled, we need studies with improved quality to further understand short and 4 5 long-term airborne transmission. But I -- we were not 6 wedded to those. They were a foundation that existed in 7 all of the international and national guidance, and had -- and, if evidence demonstrates that that is 8 9 incorrect, then the guidance will shift. 10 Q. Okay. 11 Finally this, then: would it follow, would you agree, that there was a reluctance to acknowledge 12 13 airborne transmission because there was an emphasis on 14 looking for the evidence of aerosol transmission, rather 15 than the possibility that it would persist, it would 16 exist? 17 A. I don't -- if the evidence had demonstrated and --I mean, I go back to the role of the UK IPC cell, we 18 19 weren't driving the science, our role throughout the 20 pandemic was to take the outputs from the science groups 21 and the evidence that they had discussed, and their 22 recommendations and translate that into the IPC guidance 23 document. 24 MR WEATHERBY: Thank you very much. 25 THE WITNESS: Thank you. 170 1 Α. So on the primary care and the FRSM, the date round 2 about that guidance, as I recall from my statement, that 3 Covid-19 at that point in time was classified as 4 a high-consequence infectious disease and, given that, 5 in primary care settings, FFP3 fit testing was not
- 6 widely established, then the advice that we were giving
- 7 in that situation at that particular time was obviously
- 8 for people who suspected themselves was not to turn up
- 9 at a GP practice but, if they did, for the GP to
- 10 basically identify through assessment that there could
- be a potential that this individual may have SARS-CoV-2,
- 12 to isolate them and not undertake any intervention, and
- 13 then to inform their local infectious diseases service
- 14 to take advice on what to do next.
  - As the pandemic progressed and evolved, GP services
- 16 took on quite a different approach where, you know, they
- 17 were triaging on the phone and, you know, individuals
- 18 not turning up, so we were looking at more
- 19 administrative controls in the primary care setting
- 20 rather than the PPE.
- 21 Q. Right, thank you.

15

22 LADY HALLETT: I'll just interrupt there, forgive me,

- 23 Ms Banton. I thought you said that as long as it was
- 24 classified as a high-consequence infectious disease, all
- 25 healthcare workers had to wear respiratory protection

assessments.

You told us that the IPC cell developed various tools to support organisations and that teams would help

1	equipment.	1	
2	A. That's correct.	2	
3	LADY HALLETT: But wouldn't that be more than the	3	
4	fluid-resistant masks that Ms Banton was talking about?	4	
5	A. At the time, when it was classified as	5	
6	a high-consequence infectious disease, we didn't have	6	
7	many cases or if any cases in the UK, and because we	7	
8	knew that FFP3 respirators was not something fit,	8	
9	because they have to be fit tested, there will not be	9	
10	many GP practices and clinicians in primary care that	10	
11	are fit tested for a FFP3 respirator. So the guidance	11	
12	was to put in place measures that would protect the	12	
13	individual patient but protect the healthcare worker at	13	
14	the same time. So we were not anticipating that those	14	
15	primary care practitioners would come into contact with	15	
16	a high-consequence infectious disease at that time, but	16	
17	if they did and they presented, then it was identify,	17	
18	isolate and inform.	18	Α.
19	LADY HALLETT: Right.	19	
20	Sorry to cut across you.	20	
21	MS BANTON: I'm very grateful, my Lady.	21	
22	If I may, just a question that arises from an	22	
23	earlier answer which also is relating to my question,	23	
24	just to clarify that something was raised in questioning	24	
25	before the afternoon break on the topic of risk	25	
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1	Health and Safety Executive's hierarchy of controls, and	1	
2	the health equality impact assessment on the guidance	2	
3	did highlight within that the PPE, particularly the FFP3	3	
4	fit testing for BAME groups and colleagues, so that was	4	
4 5	highlighted in that document. And as I say, I know that	4 5	
6			
7	a deputy CNO colleague did take forward some work, which	6 7	
8	I wasn't involved in, to do with fit testing for ethnic		
о 9	minority groups. MS BANTON: Thank you.	8 9	
9 10	5	9 10	
11	Thank you, my Lady. LADY HALLETT: Thank you very much.	10	
12	Mr Simblet.	11	
13	Questions from MR SIMBLET KC	13	
14	MR SIMBLET: Thank you, my Lady.	14	A.
15	Dr Ritchie, I'm asking questions on behalf of the	15	Q.
16	Covid Airborne Transmission Alliance in connection with,	16	
17	well, first, some issues in relation to IPC guidance and	17	A.
18	its applicability.	18	Q.
19	Now, can I have your witness statement on screen,	19	
20	please.	20	
21	It's INQ000421939, and internal page 12.	21	A.
22	While that's being located, Dr Ritchie, your witness	22	Q.
23	statement for this module, and I think it's your only	23	A.
24	witness statement, is dated 23 July 2024, so barely	24	Q.
25	seven weeks or so before we began and well after 175	25	Α.

(44) Pages 173 - 176
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Covid-19 is different from TB because the predominant
Right. Why is Covid-19 any different from TB?
Yes, and local risk assessments are not required for TB? They are recommended.
That's recommended.
right?
protective equipment when dealing with cases; is that
With TB, healthcare workers will wear respiratory
Correct.
common ones such as measles. Is that right?
And those include TB, MERS, SARS-1, and even some more
Correct.
and they are called serious pathogens. Is that right?
more serious and harmful to human health than others,
pathogens, this is obvious I would have expected, are
micro-organism that can cause disease, and some
With that in mind, Dr Ritchie, a pathogen is any
generally apply to all routes of transmission."
IPC strategies are not specific to any one pathogen and
"Effective IPC guidance must be broadly applicable.
What you have told us there is that:
please, and zoomed in. It's at the bottom of the page.
So could I have paragraph 40 put on the screen,
disclosure of the infection of the expert statements and so on in relation to transmission science.
disalogues of the infection of the owned to the second
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it was more in relation to the environment and the
necessary. When I was talking about risk assessments,
how to end up with good FFP3 protection when it was
making sure that there was a proper risk assessment on
a piece of work with BAME representatives, which was on
of the deputy chief nursing officers, did undertake
respiratory protection, I do note that a colleague, one
So in terms of the FF the facial protection,
teams directed at addressing such specific issues?
tool was not worked on or, indeed, support from IPC
So can you explain why a specific risk assessment
PPE, working conditions, et cetera.
the time. We've heard reference to unequal access to
ethnic minority healthcare workers which was public at
evident in the disproportionate infection rates for
only a general risk assessment. However, there was a clear and stark disparity
healthcare workers, and your response was that it was
particular risk assessment specific to ethnic minority
Counsel to the Inquiry asked whether there was any
assessments and to put in place mitigating measures.
those struggling with outbreaks to undertake risk
tools to support organisations and that learns would help

1		mode of spread for TB is airborne; for Covid-19 the
2		predominant mode of spread is droplet and contact.
3	Q.	Is that still your position in this Inquiry today, after
4		all the evidence we've heard: that the primary mode of
5		transmission for Covid-19 is droplet and contact?
6	Α.	That is my position.
7	Q.	So what you've said at paragraph 40 needs to be looked
8		at in this context as well, doesn't it, that when it
9		comes to respiratory protection for healthcare workers,
10		you think that those who are guarding against Covid-19
11		require less than is required for TB?
12	Α.	It's not just what I've tried to explain in the last
13		couple of hours is not just the respiratory protective
14		equipment, it's making sure that the environment and the
15		hierarchy of controls is applied and risk assessment is
16		applied as well. Paragraph 40, saying about effective
17		IPC guidance must be broadly applicable, is because
18		pathogens generally don't just transmit by one route,
19		they generally transmit by many routes and, when it says
20		"IPC strategies are not specific to any one pathogen",
21		that's the approach. IPC is multifaceted, there is no
22		one single thing like hand washing that's going to make
23		a difference for a pathogen; it's multiple interventions
24		that are reliably applied all of the time and the
25		monitoring of that is happening all of the time to
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1		assessment, to protect themselves, the healthcare
2		worker, it's almost impossible, isn't it?
3	Δ	I'm not quite sure I follow your question

3 A. I'm not quite sure I follow your question.

- 4 Q. The disease against which they are guarding is one that
  5 cannot be seen or smelt or heard, or whatever, so for
- 6 them to suddenly sit down and start deciding what they7 ought to do to guard against it, as opposed to being
- 7 ought to do to guard against it, as opposed to being8 assisted and instructed in what to do by specialist
- 9 infection prevention and control guidance, is
- 10 effectively impossible, isn't it?
- 11 **A.** But that could then be said for many pathogens, like
- 12 MRSA, or C. diff. You do an assessment of the patient,
- 13 you look for signs and symptoms, you may take some
- 14 tests, and on the basis of your clinical assessment,
- 15 which our healthcare workers are doing every single day,
- 16 they are seeing patients with suspected and known
- 17 infections in many of the healthcare settings, so they
- 18 are making that individual risk assessment depending on
- 19 also the procedure that they're going to undertake. So
- 20 the patient may not even have an infection, but they
- 21 might be going to undertake a procedure where there
- 22 might be some spraying or splashing of blood,
- 23 for example, and in that situation they would clinically
- 24 risk assess and wear the appropriate PPE.
- 25 LADY HALLETT: Mr Simblet, (a) I don't see where this is 179

- ensure that those things are in place.
- 2 **Q.** Right. 3 N

1

4

5

- Now, one of the things that you've mentioned at various points in your evidence is risk assessments and you've spoken of local risk assessments and healthcare
- 6 workers' own risk assessments. Do you accept that with
  - a disease such as Covid-19, where you can't see it, or
- 8 hear it, or smell it, or anything like that, that it's
- 9 essentially impossible for a individual healthcare
- 10 worker to undertake their own individual risk
- 11 assessment?
- 12 A. But that individual may -- there is an assessment done
- 13 on the individual and the individual may have signs and
- 14 symptoms, they may be tested, so you would have some
- 15 idea of someone being suspected or known to have that
- 16 pathogen. And the high risk assessment is not and
- 17 should not be new to healthcare systems. In the Health
- 18 and Social Care Act, the code of practice for infection
- 19 prevention and control mentions risk assessment many,
- 20 many times, and it is something that should be put in
- 21 place across every healthcare facility to make sure that
- 22 people are looking at ventilating systems and assessing
- 23 the environment and making the environment as safe as
- 24 possible for patients and staff and visitors.
- 25 **Q.** No, but in terms of doing their own individuated risk 178
- 1 going and (b) I don't see it on the list of questions 2 I authorised. 3 MR SIMBLET: Right, well, in that case, could I move to 4 something else. My Lady, we have asked, as you know, 5 over the weekend -- there was some material which was 6 highly relevant to the IPC guidance which was disclosed 7 very recently. We have been working very hard over the 8 weekend to try and assist in formulating questions. It 9 may be that we have to ask for this witness to come 10 back, but we've submitted questions this afternoon and 11 had the email back that we're awaiting your 12 determination, but it's now 4.15, so would you like me 13 to ask them or would you like me to pursue this in 14 a different way? 15 LADY HALLETT: I'm sorry, I haven't got the foggiest what you're saying, Mr Simblet. I will only allow for 16 17 a witness to be recalled if I think it's absolutely and 18 strictly necessary. I've given permission for you to 19 ask certain questions, you may ask them, but just be warned that if you don't ask them you may not get the 20 21 opportunity because I may not agree that the witness 22 needs to be recalled. 23 MR SIMBLET: Thank you. 24 Then I shall -- can I move on to a different issue, please. It's in relation to the suggestion that --25 180

1	well, it's in relation to what you thought the guidance
2	should lead to and the confidence that you wanted people
3	to have in it.
4	Could we have on the screen, please, INQ000398144.
5	These are an extract from some of the minutes of the
6	IPC cell for 9 September 2020.
7	LADY HALLETT: Have you warned our wonderful document
8	manager of the document you want up on screen?
9	MR FIREMAN: Yes, I wonder if the question could be
10	summarised with reference to the relevant passage.
11	LADY HALLETT: If you could summarise what's in the
12	document.
13	MR SIMBLET: Okay, if that's easier.
14	And my Lady, I'm sorry to be doing this on my feet.
15	This is not any fault of me or those instructing me or
16	my clients. This is material that could and should, we
17	would say, have been disclosed
18	LADY HALLETT: All right, Mr Simblet, I'm not going down
19	
	that path now. So could you carry on with the
20	questions. You're running out of time.
21	MR SIMBLET: Thank you.
22	It's in those minutes and it's for the people
23	following at box 3, bullet point 3, it was said that,
24	well, somebody in the meeting said:
25	"If you wanted to change the guidance itself it 181
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1	permission to ask a question on.
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1		would need a very careful narrative as it would be easy
2		to give the impression that we got it wrong the first
2		time when it's something we collectively signed off on
4		and submitted to our chief nursing officers."
- 5		Now, that was said in a meeting on 9 September. You
6		weren't there, but the minutes came out subsequently.
7		Would you say that sometimes the IPC cell was more
' 8		bothered about maintaining face than actually
0 9		transparently and accurately providing the best and most
9 10		reliable information?
11	A.	Absolutely not. As a UK IPC cell, it was not about
12	А.	saving face. We were doing our level best to make sure
12		5
13		that the guidance that was put out was going to protect our healthcare workers and protect patients.
14		
16		Had that guidance been incorrect and had we been
17		advised by any of our senior clinicians that the guidance was incorrect, it would have been changed. We
18		were not a rogue cell.
10	~	5
20	Q.	Can I go on to a different topic, please, and, again, this is INQ000398221, and page 6 of that. These are
20 21		minutes from 27 January 2021 and, taking the approach
21		
22	мр	I've just been asked to do, I'll summarise this. <b>FIREMAN:</b> Sorry, I'm not sure if these minutes have
23 24	IVIR	actually been authorised in terms of the particular
24 25		question that the core participant has been given
20		182
1		had, what supplies you actually had?
2	A.	So the supply, the purchase, all of the issues round
3		about PPE was not within the remit of the UK IPC cell.
4		We were aware, given the global demand, that that might
5		be something that could happen, that there would be
6		a limit or run out of PPE. The guidance was not based
7		on any supply issues to do with PPE.
8	MR	<b>SIMBLET:</b> Well, I've got the answer to that. Thank you.
9		<b>DY HALLETT:</b> Thank you, Mr Simblet.
10		Further questions from THE CHAIR
11	LA	<b>DY HALLETT:</b> One last question, Dr Ritchie, and I promise
12		you it is the last question. It's been a long day for
13		you, I know. Basically, it's a question that's come
14		from the BMA.
15		You've placed quite a lot of reliance, many people
16		would understand why, some may question why, on the
17		World Health Organisation. Dare I say it, none of us
18		are infallible and the question comes based on
19		a statement made by, forgive my pronunciation if I get
20		it wrong, Dr Soumya Swaminathan, the World Health
21		Organisation's chief scientist, who stated on her
22		retirement in November 2022 that her biggest regret was
23		not acknowledging earlier in the pandemic that
		·

- 24 SARS-CoV-2 could be spread by aerosols.
- 25 I suppose it's really a comment rather than 184

1		a question, but given that, haven't you, as somebody
2		exercising an expert capacity, got to be careful about
3		the reliance you place on any one body or one expert,
4		because they may not always be right?
5	Α.	Absolutely, I don't disagree with that, and I think
6		a body of evidence is much better than a single view.
7		I think, you know, we've got a long way to go on the
8		research, and I think those clinical medical groups that
9		made a difference was the behavioural scientists and our
10		clinical medical people.
11		The research currently, and this might be something
12		for the way forward, I think a lot of the research
13		grants go to a lot of the "omics", like genomics and
14		research in that space. It's not easy to do infection
15		prevention and control research, so it feels like we
16		need to have something pre-made, ready to go, to test
17		all of these interventions, because it's really
18		difficult to tease out: well, was it because we put the
19		patient in a single room, was it because they were
20		wearing FFP, the healthcare worker was wearing an FFP3
21		respirator? So I think bringing the operational arm,
22		like us nurses, IPC nurses, with the scientific arm and
23		really bringing that much closer together in research
24		would be a major step forward.
25		Thank you.
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1	LADY HALLETT: Thank you very much indeed. As I say, I do
2	realise it's been a long day for you, thank you very
3	much indeed for all your help.
4	We will finish there and I shall start again at
5	10 o'clock tomorrow morning.
6	(The witness withdrew)
7	(4.27 pm)
8	(The hearing adjourned until 10 am
9	on Tuesday, 17 September 2024)
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184/20 switch [1] 14/18 sworn [4] 1/5 62/6 62/7 187/15 symptoms [3] 48/3 178/14 179/13 synonymous [1] 97/9 system [11] 3/13 4/7 4/13 4/24 9/1 11/21 15/1 17/17 21/1 23/10 143/19 systemic [7] 4/21 6/25 9/19 14/12 23/13 27/20 27/20 systems [8] 6/22 10/15 21/12 24/2 50/4 147/7 178/17 178/22	<b>TB</b> [7] 176/15 176/18 176/22 176/24 176/25 177/1 177/11 <b>team [5]</b> 63/1 146/17 147/19 161/20 166/13 <b>teams [3]</b> 147/18 174/3 174/17 <b>tease [1]</b> 185/18 <b>teased [1]</b> 131/9 <b>technical [3]</b> 27/1 27/6 115/13 <b>telemedicine [1]</b> 143/23 <b>tell [2]</b> 12/18 93/21 <b>telling [3]</b> 113/23 126/1 159/2 <b>ten [1]</b> 101/20 <b>ten years [1]</b> 101/20 <b>ten years [1]</b> 101/20 <b>tend [2]</b> 14/16 14/25	175/7 <b>tests [3]</b> 12/4 171/20 179/14 <b>text [1]</b> 100/12 <b>than [52]</b> 2/7 8/3 8/11 14/5 14/8 18/1 21/4 21/23 22/8 23/12 26/19 29/6 35/23 40/5 41/21 48/1 52/14 55/4 59/6 67/18 68/14 69/14 70/4 74/18 85/8 91/15 92/20 92/25 95/5 103/11 109/17 116/4 121/10 123/10 125/23 135/8 141/22 144/7 147/2 149/7 149/10 149/21 150/23 158/2 170/15 172/20 173/3 176/12 177/11	17/5 18/14 18/15 18/18 20/7 20/23 20/24 22/16 24/9 25/13 29/9 30/2 30/8 30/20 31/18 33/11 34/17 34/18 36/17 36/19 37/3 38/23 41/22 42/7 44/2 45/15 46/23 48/5 50/2 56/3 56/12 57/10 62/14 62/21 62/24 63/15 63/22 64/3 65/4 65/8 65/19 68/3 68/9 68/16 72/18 76/19 79/5 79/8 80/14 80/19 81/24 81/25 83/2 84/5 84/15 87/2 88/4 89/21 91/24 93/5 94/13 94/16 95/4 95/18 95/24 96/9	147/4 147/22 148/5 150/10 153/16 159/8 164/21 165/2 165/3 169/12 172/12 179/6 180/13 180/19 180/20 183/11 <b>themselves [7]</b> 37/19 54/4 59/1 78/13 155/24 172/8 179/1 <b>then [142]</b> 4/19 4/20 9/17 9/20 10/17 10/20 12/13 12/17 14/10 14/13 14/18 16/19 17/11 17/16 18/1 18/5 18/6 18/17 19/10 23/6 24/18 27/23 27/25 39/6 39/19 41/9 47/13 48/23 52/18 55/11 63/13 63/20 67/13
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184/20 switch [1] 14/18 sworn [4] 1/5 62/6 62/7 187/15 symptoms [3] 48/3 178/14 179/13 synonymous [1] 97/9 system [11] 3/13 4/7 4/13 4/24 9/1 11/21 15/1 17/17 21/1 23/10 143/19 systemic [7] 4/21 6/25 9/19 14/12 23/13 27/20 27/20 systems [8] 6/22 10/15 21/12 24/2 50/4 147/7 178/17 178/22 T table [4] 50/3 75/17 100/4 162/25	TB [7] 176/15 176/18 176/22 176/24 176/25 177/1 177/11 team [5] 63/1 146/17 147/19 161/20 166/13 teams [3] 147/18 174/3 174/17 tease [1] 185/18 teased [1] 131/9 technical [3] 27/1 27/6 115/13 telemedicine [1] 143/23 tell [2] 12/18 93/21 telling [3] 113/23 126/1 159/2 ten [1] 101/20 ten years [1] 101/20 tend [2] 14/16 14/25 tended [1] 111/18	175/7 tests [3] 12/4 171/20 179/14 text [1] 100/12 than [52] 2/7 8/3 8/11 14/5 14/8 18/1 21/4 21/23 22/8 23/12 26/19 29/6 35/23 40/5 41/21 48/1 52/14 55/4 59/6 67/18 68/14 69/14 70/4 74/18 85/8 91/15 92/20 92/25 95/5 103/11 109/17 116/4 121/10 123/10 125/23 135/8 141/22 144/7 147/2 149/7 149/10 149/21 150/23 158/2 170/15 172/20 173/3 176/12 177/11 182/8 184/25 185/6 thank [72] 1/16 28/7	$\begin{array}{c} 17/5 \ 18/14 \ 18/15 \\ 18/18 \ 20/7 \ 20/23 \\ 20/24 \ 22/16 \ 24/9 \\ 25/13 \ 29/9 \ 30/2 \ 30/8 \\ 30/20 \ 31/18 \ 33/11 \\ 34/17 \ 34/18 \ 36/17 \\ 36/19 \ 37/3 \ 38/23 \\ 41/22 \ 42/7 \ 44/2 \ 45/15 \\ 46/23 \ 48/5 \ 50/2 \ 56/3 \\ 56/12 \ 57/10 \ 62/14 \\ 62/21 \ 62/24 \ 63/15 \\ 63/22 \ 64/3 \ 65/4 \ 65/8 \\ 65/19 \ 68/3 \ 68/9 \ 68/16 \\ 72/18 \ 76/19 \ 79/5 \ 79/8 \\ 80/14 \ 80/19 \ 81/24 \\ 81/25 \ 83/2 \ 84/5 \ 84/15 \\ 87/2 \ 88/4 \ 89/21 \ 91/24 \\ 93/5 \ 94/13 \ 94/16 \ 95/4 \\ 95/18 \ 95/24 \ 96/9 \\ 97/12 \ 97/14 \ 100/14 \\ 101/13 \ 102/15 \ 104/19 \end{array}$	147/4 147/22 148/5 150/10 153/16 159/8 164/21 165/2 165/3 169/12 172/12 179/6 180/13 180/19 180/20 183/11 <b>themselves [7]</b> 37/19 54/4 59/1 78/13 155/24 172/8 179/1 <b>then [142]</b> 4/19 4/20 9/17 9/20 10/17 10/20 12/13 12/17 14/10 14/13 14/18 16/19 17/11 17/16 18/1 18/5 18/6 18/17 19/10 23/6 24/18 27/23 27/25 39/6 39/19 41/9 47/13 48/23 52/18 55/11 63/13 63/20 67/13 67/17 68/7 71/16 72/14 74/23 75/22
184/20 switch [1] 14/18 sworn [4] 1/5 62/6 62/7 187/15 symptoms [3] 48/3 178/14 179/13 synonymous [1] 97/9 system [11] 3/13 4/7 4/13 4/24 9/1 11/21 15/1 17/17 21/1 23/10 143/19 systemic [7] 4/21 6/25 9/19 14/12 23/13 27/20 27/20 systems [8] 6/22 10/15 21/12 24/2 50/4 147/7 178/17 178/22 T table [4] 50/3 75/17 100/4 162/25 tackle [1] 35/25	TB [7] 176/15 176/18 176/22 176/24 176/25 177/1 177/11 team [5] 63/1 146/17 147/19 161/20 166/13 teams [3] 147/18 174/3 174/17 tease [1] 185/18 teased [1] 131/9 technical [3] 27/1 27/6 115/13 telemedicine [1] 143/23 tell [2] 12/18 93/21 telling [3] 113/23 126/1 159/2 ten [1] 101/20 ten years [1] 101/20 ten years [1] 101/20 tend [2] 14/16 14/25 tended [1] 111/18 tens [1] 18/14 term [9] 22/14 22/18	175/7 tests [3] 12/4 171/20 179/14 text [1] 100/12 than [52] 2/7 8/3 8/11 14/5 14/8 18/1 21/4 21/23 22/8 23/12 26/19 29/6 35/23 40/5 41/21 48/1 52/14 55/4 59/6 67/18 68/14 69/14 70/4 74/18 85/8 91/15 92/20 92/25 95/5 103/11 109/17 116/4 121/10 123/10 125/23 135/8 141/22 144/7 147/2 149/7 149/10 149/21 150/23 158/2 170/15 172/20 173/3 176/12 177/11 182/8 184/25 185/6 thank [72] 1/16 28/7 29/10 29/12 29/13	$\begin{array}{c} 17/5 \ 18/14 \ 18/15 \\ 18/18 \ 20/7 \ 20/23 \\ 20/24 \ 22/16 \ 24/9 \\ 25/13 \ 29/9 \ 30/2 \ 30/8 \\ 30/20 \ 31/18 \ 33/11 \\ 34/17 \ 34/18 \ 36/17 \\ 36/19 \ 37/3 \ 38/23 \\ 41/22 \ 42/7 \ 44/2 \ 45/15 \\ 46/23 \ 48/5 \ 50/2 \ 56/3 \\ 56/12 \ 57/10 \ 62/14 \\ 62/21 \ 62/24 \ 63/15 \\ 63/22 \ 64/3 \ 65/4 \ 65/8 \\ 65/19 \ 68/3 \ 68/9 \ 68/16 \\ 72/18 \ 76/19 \ 79/5 \ 79/8 \\ 80/14 \ 80/19 \ 81/24 \\ 81/25 \ 83/2 \ 84/5 \ 84/15 \\ 87/2 \ 88/4 \ 89/21 \ 91/24 \\ 81/25 \ 83/2 \ 84/5 \ 84/15 \\ 87/2 \ 88/4 \ 89/21 \ 91/24 \\ 93/5 \ 94/13 \ 94/16 \ 95/4 \\ 95/18 \ 95/24 \ 96/9 \\ 97/12 \ 97/14 \ 100/14 \\ 101/13 \ 102/15 \ 104/19 \\ 105/23 \ 109/16 \ 113/8 \\ 113/8 \ 113/9 \ 114/1 \end{array}$	147/4 147/22 148/5 150/10 153/16 159/8 164/21 165/2 165/3 169/12 172/12 179/6 180/13 180/19 180/20 183/11 <b>themselves [7]</b> 37/19 54/4 59/1 78/13 155/24 172/8 179/1 <b>then [142]</b> 4/19 4/20 9/17 9/20 10/17 10/20 12/13 12/17 14/10 14/13 14/18 16/19 17/11 17/16 18/1 18/5 18/6 18/17 19/10 23/6 24/18 27/23 27/25 39/6 39/19 41/9 47/13 48/23 52/18 55/11 63/13 63/20 67/13 67/17 68/7 71/16 72/14 74/23 75/22 76/9 76/11 76/14
184/20 switch [1] 14/18 sworn [4] 1/5 62/6 62/7 187/15 symptoms [3] 48/3 178/14 179/13 synonymous [1] 97/9 system [11] 3/13 4/7 4/13 4/24 9/1 11/21 15/1 17/17 21/1 23/10 143/19 systemic [7] 4/21 6/25 9/19 14/12 23/13 27/20 27/20 systems [8] 6/22 10/15 21/12 24/2 50/4 147/7 178/17 178/22 T table [4] 50/3 75/17 100/4 162/25 tackle [1] 35/25 take [33] 17/21 18/4	<b>TB</b> [7] 176/15 176/18 176/22 176/24 176/25 177/1 177/11 <b>team [5]</b> 63/1 146/17 147/19 161/20 166/13 <b>teams [3]</b> 147/18 174/3 174/17 <b>tease [1]</b> 185/18 <b>teased [1]</b> 131/9 <b>technical [3]</b> 27/1 27/6 115/13 <b>telemedicine [1]</b> 143/23 <b>tell [2]</b> 12/18 93/21 <b>telling [3]</b> 113/23 126/1 159/2 <b>ten [1]</b> 101/20 <b>ten years [1]</b> 101/20 <b>ten years [1]</b> 101/20 <b>ten de [1]</b> 111/18 <b>tens [1]</b> 18/14 <b>term [9]</b> 22/14 22/18 23/4 28/17 56/17 97/11 111/23 156/17 170/5	175/7 <b>tests [3]</b> 12/4 171/20 179/14 <b>text [1]</b> 100/12 <b>than [52]</b> 2/7 8/3 8/11 14/5 14/8 18/1 21/4 21/23 22/8 23/12 26/19 29/6 35/23 40/5 41/21 48/1 52/14 55/4 59/6 67/18 68/14 69/14 70/4 74/18 85/8 91/15 92/20 92/25 95/5 103/11 109/17 116/4 121/10 123/10 125/23 135/8 141/22 144/7 147/2 149/7 149/10 149/21 150/23 158/2 170/15 172/20 173/3 176/12 177/11 182/8 184/25 185/6 <b>thank [72]</b> 1/16 28/7 29/10 29/12 29/13 29/14 29/16 29/19 29/25 30/5 30/18 33/2 36/17 48/5 51/10	$\begin{array}{c} 17/5 \ 18/14 \ 18/15 \\ 18/18 \ 20/7 \ 20/23 \\ 20/24 \ 22/16 \ 24/9 \\ 25/13 \ 29/9 \ 30/2 \ 30/8 \\ 30/20 \ 31/18 \ 33/11 \\ 34/17 \ 34/18 \ 36/17 \\ 36/19 \ 37/3 \ 38/23 \\ 41/22 \ 42/7 \ 44/2 \ 45/15 \\ 46/23 \ 48/5 \ 50/2 \ 56/3 \\ 56/12 \ 57/10 \ 62/14 \\ 62/21 \ 62/24 \ 63/15 \\ 63/22 \ 64/3 \ 65/4 \ 65/8 \\ 65/19 \ 68/3 \ 68/9 \ 68/16 \\ 72/18 \ 76/19 \ 79/5 \ 79/8 \\ 80/14 \ 80/19 \ 81/24 \\ 81/25 \ 83/2 \ 84/5 \ 84/15 \\ 87/2 \ 88/4 \ 89/21 \ 91/24 \\ 93/5 \ 94/13 \ 94/16 \ 95/4 \\ 95/18 \ 95/24 \ 96/9 \\ 97/12 \ 97/14 \ 100/14 \\ 101/13 \ 102/15 \ 104/19 \\ 105/23 \ 109/16 \ 113/8 \\ 113/8 \ 113/9 \ 114/1 \\ 116/6 \ 117/12 \ 117/18 \\ 119/3 \ 122/1 \ 123/19 \end{array}$	147/4 147/22 148/5 150/10 153/16 159/8 164/21 165/2 165/3 169/12 172/12 179/6 180/13 180/19 180/20 183/11 <b>themselves [7]</b> 37/19 54/4 59/1 78/13 155/24 172/8 179/1 <b>then [142]</b> 4/19 4/20 9/17 9/20 10/17 10/20 12/13 12/17 14/10 14/13 14/18 16/19 17/11 17/16 18/1 18/5 18/6 18/17 19/10 23/6 24/18 27/23 27/25 39/6 39/19 41/9 47/13 48/23 52/18 55/11 63/13 63/20 67/13 67/17 68/7 71/16 72/14 74/23 75/22 76/9 76/11 76/14 76/17 76/19 78/2 78/25 80/20 83/24 84/9 84/15 84/18 86/1
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