Manchester Arena Inquiry

Day 82

March 25, 2021

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Thursday, 25 March 2021
(10.00 am)
SIR JOHN SAUNDERS: Good morning. Ms Cartwright.
MS CARTWRIGHT: The gentleman in the witness box is Dr Edward Tunn. Could I ask him now to be sworn, please, sir.
DR EDWARD TUNN (sworn)
Questions from MS CARTWRIGHT
MS CARTWRIGHT: Could you please tell the court your full name?
A. Edward James Tunn.
Q. Dr Tunn (inaudible: distorted) at the time you had provided answers by way of an account to Greater Manchester Police. I think in your witness statement you identify that being provided in April, but you have been provided with that also in your pack. Is it correct that that earlier account of your involvement on the night was dated 6 February 2018?
A. I have it here, so I'll just check.
Q. If you look on the last page of that document, it records the date and time completed, 6 February 2018.
A. Yes.
Q. Are the contents of that document true to the best of your knowledge and belief as well?
A. Yes.

Q. Dr Tunn, in starting, I just want to identify both for your benefit but also the benefit of those watching, as we'll deal with shortly, you attended the scene on the night, but we are not going to identify any of the deceased by name, nor are we going to provide any details of individual casualties that would enable them to be identified. So I make that clear at this stage.
A. Thank you.
Q. And I would ask that none of those asking questions today ask questions so as to identify any of those casualties.
Having set that out, could you first of all ask you to give us details of your qualifications? We can see from the witness statement you provided that you were at the relevant time a consultant rheumatologist, so could you first of all deal with your role as a consultant rheumatologist and your qualifications for that role, please?
A. Standard UK training, so an MBChB, the medical degree, Glasgow, 1978. The standard post-grad physician's Membership of the Royal College of Physicians, which later gets converted to a fellowship, but essentially MRCP, some 3 years after qualification, which is the standard general medicine postgraduate qualification.
Q. Thank you.

A. Thereafter, there's then specialty training within one's chosen specialty, which in my case is rheumatology, which follows the standard UK pattern and is externally controlled by, for example, the College of Physicians.
Q. Thank you. In May 2017, it's correct, isn't it, that your primary role was as a consultant rheumatology at the Royal Liverpool and Broad Green University Hospital's NHS trust?
A. Yes, that was my primary role. Effectively, I had a standard consultant contract with the hospital. For the first, roughly... From 1990, for roughly the first 10 years that was purely rheumatology. Then from 2001 onwards, I was gradually seconded in part, for part of the time, but within the same overall envelope, to a number of other roles, which changed as the years evolved.
Q. I want to now deal with two of those other roles if you can assist us, please. It's correct, isn't it, that in May 2017 you were also the associate medical director for North West Ambulance Service?
A. Yes.
Q. And additionally to that, you were the medical adviser for the National Ambulance Resilience Unit?
A. Yes.
Q. So dealing with the second of your roles, that of the

associate medical director, you tell us in your witness statement that you had held that position from 2006 until October of 2018.
A. Yes. So I first joined the ambulance services in 2001, which was the then Mersey Regional Ambulance Service, and that was as medical director of the small ambulance service as it was at the time, Cheshire and Mersey, as we now know it.
In 2006, there was a national reorganisation of the ambulance services into larger units, which became the North West Ambulance Service, and at that time I then moved -- stayed within the Ambulance Service and became one of the associate medical directors in that new larger organisation.
Q. Thank you. Can you please just give us some idea, bearing in mind the different hats and roles you have, as to how much of your time being an associate medical director for NWAS would take.
A. Roughly, 2 days a week. It'd be a very, very rough estimate. The job plan is reviewed every year by peer appraisers and agreed with essentially the executives. It's changed over the years. I think initially, at the start, around 2001, it might have been as much as 3 days a week. Roughly 50%, 40%, I think, to start with, but by the time we came to 2017, which would be the relevant

time, I think it was 2 days per week.
Q. You describe in the account you provided to the police in February 2018 that the associate medical director role is mainly a senior management office role, but with operational capability and regular participation in operational emergency ambulance jobs as the desk job permits?
A. Yes. So there is no requirement in the job to be operational, in the job. So doctors are used in the Ambulance Service to help to develop the profession and the service. When the paramedic profession and the technician colleagues are developing into new areas, such as urgent care to help take the pressure off emergency departments, as a straightforward example, there are new ways of working. So it's to help, to facilitate and develop those new ways of working. So it's mainly doing that from behind the scenes. Hence the desk job reference.
Personally, I elected to get pretty close to the front line in order to be able to understand the granularity of the systems that we were expecting to develop. So there's a bit of being well-informed about the nature of the challenge and also the notion of visible leadership. So if we're going to ask the profession, our colleagues in the Ambulance Service, to

undertake new roles, to be visible to them in leading that development, so hence the involvement in emergency care as the day job permitted and also at night, from home, for example.
Q. Thank you. So perhaps then, would it be fair to say that being an associate medical director does not require you to take on duties operationally?
A. Absolutely.
Q. But you took on that responsibility or chose to?
A. Exactly. As a rough idea, sometimes other duties permitting, it might be four 999 responses in a day, sometimes it might be one in a fortnight, just depending on the... because we are used to go to a selection of the more serious incidents or the larger incidents where assistance might be of use.
Q. I'm going to ask you in a minute about those operational teams that you work within. Before doing so, could you first of all identify at the relevant time who was the medical director for North West Ambulance Service, please?
A. That's changed a number of times in the nature of the business, but I think I'm pretty sure it was David Ratcliffe, my colleague.
Q. In describing what your role was in terms of the office role, could you just give us a bit more of an

understanding as to what that actually practically meant you did by way of development of policies or implementation of training for front line personnel?
A. So within the -- I think we had, it changed from time to time, but between four and five associate medical directors and so the workload was divided up into natural groups. Some were dealing with things like air ambulance and the like, which was not me. I was dealing mainly with urgent care, so looking at ways of arranging for patients in the community to have their needs met without having necessarily to present at ED, so in other words trying to take the pressure off emergency departments. And a separate role, an additional role in 2017, was working with the clinical commissioning group, to work with them to develop the urgent care system so that we had services that we could divert patients to appropriately.
Q. Could I ask, as part of your role as the associate medical director, would you have had any role in the development of North West Ambulance Service's major incident response plan?
A. Indirectly. I mean, yes, the medical directorate, which would comprise the medical director, the associate medical directors, the most senior paramedics, the consultant paramedics, would be a collective that would

do the work, the clinical work. That would then be presented to boards for formal sign-off. So it would be more -- the majority of the major incident plan is logistics, which is not core clinical. So we would be -- it would be for information and to check that there were no clinical issues in that major incident plan, but there are others who are within the Ambulance Service who are technically more qualified to deal with the logistics.
Q. Can I ask you, were you involved pre the attack in May 2017 at all with the development of the triage sieve or triage sort process in a major incident?
A. So prior to 2017... Prior to 2017, I was not involved in the development. One of my training elements was the standard... One of the standard courses for management of a major incident is the so-called MIMMS, major incident management medical, and in the early -- the first decade of working with the Ambulance Service, I undertook that course and then became an instructor in that, so I was familiar with it and I was an instructor in it but not a developer of it.
Q. Thank you. I think you also identify in your witness statement that you're also currently one of the authoring faculty for a new European pre-hospital trauma course?

A. Yes. That's been somewhat delayed in its launch by COVID but it's just on the point of being delivered and it's underwritten by the Royal College of Surgeons, for example, so it's a large national faculty that's trying to refine existing courses and trying to develop one that takes on the latest learning.
Q. Thank you. What I'm going to ask you to do now, please, is just describe those operational roles that you had with North West Ambulance Service as of the time of the incident of May 2017, please. You've already identified, I think, the AIT team, the Ambulance Intervention Team. Could you describe what your role was as part of the Ambulance Intervention Team, please?
A. The real answer is no significant involvement with that team. It was -- I was trained in AIT. Like the discussions we had earlier, there was no requirement for one of the associate medical directors to be trained to that standard because the AIT team are our core clinical staff in the ambulance who have volunteered to undertake the additional training to work in those particular environments.

I chose to undertake the training because, from experience of the other 999 exposure on the streets, I'm familiar with the challenging environments. So I felt that it would be not unreasonable to understand the

nature of their training and the tactics involved. Again, the visible leadership element. I did carry the full kit at the time in case -- in the unlikely event of being placed in a relevant position.
Q. Thank you. So we're going to look shortly at your CPD, which identifies your training for the AIT team. Would it be right to say that the AIT team would be the team that can be deployed to a marauding terrorist firearms attack, as it was at that time?
A. That's correct. Then MTFA and now MTA.
Q. So you had an understanding of that training, you were able to work in that team, but would it be also right to say that you were well aware of warm zone working as part of that training?
A. Absolutely, yes.
Q. Thank you. Can I ask you then about some of the other specialist teams that we've heard about and to understand whether you had an operational role with NWAS in those teams. We've heard reference to MERIT and MERIT doctors. Were you a North West Ambulance Service MERIT doctor?
A. In 2017 I was not because the MERIT system was being developed at that time and I had a sort of peripatetic role that allowed me to be flexible anyway. When I formally retired from full-time in October 2018,

I then joined the MERIT cadre and undertook the formal MERIT training and have this month just ended that as we've arranged the succession plan, if you like, and it has recruited sufficiently to allow me to finally stand down from that.
Q. Can we just identify -- we've used MERIT as an acronym, but MERIT stands for medical emergency response incident team, doesn't it?
A. Yes, the true words behind it have almost disappeared and MERIT is just used.
Q. So I am asking you that because we're going to deal with in due course your allocation of role when you attended at the arena, and certainly in an expert report that's been provided you've been identified in a role that included being the MERIT doctor number 1. That's why I ask you about whether you were a MERIT doctor at the time.
A. I understand the question. I was not a MERIT doctor at the time. However, from MIMMS and from other training, I was able to adapt into the role and post-event it was, I think -- the actions were consistent with the training that is now delivered.
Q. So before we move off this topic, at the relevant time in May 2017, how were MERIT doctors identified? What did you have to do to become an NWAS MERIT doctor?

A. So MERIT -- there was a formal recruitment system, there was an invitation to apply. Then and now, the associate directors, medical directors, who were developing it were very keen to draw from a range of backgrounds because it's felt to be helpful given the range of events that are likely to be having to be dealt with. So they undertake a formal job application, CV presentation, they come from a range of backgrounds, including pre-hospital care, air ambulance, anaesthetics, general practice primary care.

You then undertake a specific detailed training for the medical incident adviser role and for the forward doctor role. There's a -- I think it's about a five-day induction and then there are annual refresher requirements.

It's perhaps helpful to say that the need for medical presence in a major incident is laid out in quite soft terms in national guidance documents and are implemented -- operationalised in rather different ways across the country.

I think in the north-west it's one of the most developed, both in terms of the cadre -- we now have something in the order of 35 on the rota, two on call at any one time.
Q. Thank you. So would it be fair to summarise that MERIT

doctors are on call 24 hours a day, 7 days a week to provide advanced medical care on scene at a range of emergency incidents up to and including major and mass casualty incidents?
A. Not precisely. Almost exactly correct. But it's a gloves off, if I can say that, role. So the term that you used there, to provide advanced medical care, is not -- is explicitly not the role. So it's to provide support and advice to the ambulance command and control structure, gloves off, and the action cards 17 and 18 in the major incident define those roles and explicitly say, "Do not become involved in individual patient care".
Q. Can I then in terms of -- before moving to your third role with NARU can you -- were you part at any point of the Special Operations Response Team within North West Ambulance Service?
A. I don't think so. Effectively, no, in 2017. Way back when it was Mersey Regional Ambulance, before the merger, I undertook, for the same reasons I'd previously outlined, granularity, I undertook SORT training. That's more to do with the establishment of decontamination facilities and so on. So yes, I'd undertaken some training in deploying and packing inflatable shelters and shower systems and so on. So

I'd undertaken that training but I was not a member of SORT, particularly, I don't think, since 2006.
Q. Thank you.
I'm going to now then deal with your third role that you had in May 2017, which was your role as a medical adviser for the National Ambulance Resilience Unit.
Is it correct that you were asked to apply by NARU for that role and you've held it substantively since June 2016, but had been working in an acting capacity from January 2016?
A. Yes. I know I said that in my statement and it sounds slightly imperious so I should perhaps correct.
SIR JOHN SAUNDERS: We won't take it that way.
A. Thank you, sir.
I was asked to support NARU, the vacancy that arose, hence acting in January 2016. That I was asked. In the June appointment, the definitive, that was a formal open advert and due process was followed and I applied and was appointed.
MS CARTWRIGHT: Thank you. You tell us in your witness statement that in that role and at the time of the incident, you were the responsible medical adviser for the 15 Hazardous Area Response Teams across England and Wales.
A. Yes. Technically, the medical adviser to NARU -- if

we can use NARU, if you're happy with that -- the medical adviser to NARU, one part of what NARU is responsible for are the 15 HART units. There are other parts of resilience that NARU is commissioned to address on behalf of NHS England and the medical adviser role covers those other aspects as well.
Q. Thank you. You tell us in your witness statement that in that role, you're involved with the coordination, training and operational compliance of HART across the country.
A. Yes. Could you just ask the question again because I just want to be clear about the clinical as opposed to the operational compliance?
Q. In your witness statement you describe that as a result of that role, you were involved with the coordination, training and operational compliance of HART across the country.
A. Yes, definitely involved. So there's a small team of which I'm -- there's a small senior team within NARU, let's say five. If I had a minute, I'll be more precise. There are individuals within that -- again, portfolios -- senior colleagues on that team who are responsible directly for the compliance of operational standards, for example, maintaining the safe system of work and so on. So they're technically responsible for

the compliance, head of compliance, head of capabilities provision, and the clinical adviser is to make sure that all of those other elements are consistent with good paramedic clinical care injected into the semi-permissive environments, so clinically assuring everything else that NARU does.
Q. Thank you. Just to give us an understanding from the time when you were acting in that role from the January of 2016, roughly how much of your working week or time would that role with NARU take up?
A. Flexible, but contracted around 2 days per week. Adjustable with other jobs, so sometimes one would be present with NARU for 5 days, but essentially 2 days a week.
Q. Thank you.
SIR JOHN SAUNDERS: I thought you had probably got too many days in your week, but you obviously had a lot of responsibilities to do. Not a very serious remark.
A. It was a privilege to be able to work across, and there was some synergy between the different roles.
SIR JOHN SAUNDERS: I'm sure. Can I just go back? It's a phrase we're not very familiar with in the way you've used it. You talk about the MERIT doctors and their role as being a gloves-off role and I understand that now to be in the context of not wearing gloves because

not actually treating; is that right?
A. That's right.
SIR JOHN SAUNDERS: So perhaps not a normal use of the phrase gloves off?
A. Yes.
SIR JOHN SAUNDERS: That's all right, I think I understand.
A. It's a simple way of saying it, but not with clinical gloves on because we are, hands behind back, looking, advising, interpreting, guiding. There may be other doctors injected into scene, which we may come on to, but for those particular roles, it's explicitly ——
SIR JOHN SAUNDERS: The logic of that and the limits of it? May there be occasions when MERIT doctors have to get involved because it's an actual urgent clinical matter which other people are not dealing with?
A. In a major incident —— I understand the question, sir, and there are enthusiastic doctor colleagues who are very keen to undertake those acts as you've described. In a major incident, the object of the exercise is to get the patient to the ten waiting members of the major trauma team in the resuscitation bay in the hospital as expeditiously as we can.
In a major incident, enhanced pre—hospital care, certainly very far forward, tends to be a... It consumes staff and resources and we've got to be...

The... It can have the opposite effect of being a force multiplier. So the idea of the MERIT doctor is the force multiplier. It's —— because the —— as we saw on the night, the vast majority of the work is, entirely appropriately, carried out by the technicians and paramedics, those initial life—saving interventions. That's what they are there for. We have many more of those. There are roles for gloves—on doctors, but they are —— in the national plan, they are further back at the casualty clearing station, for example, and we do train to calibrate and encourage the doctors who are very keen to get forward.
Last week, I was on an exercise with such doctors, making sure that we calibrated them to be working in the casualty clearing station in the exercise and have the patients brought to them, where they can be effective.
SIR JOHN SAUNDERS: Thank you very much.
MS CARTWRIGHT: Perhaps just to finish the topic, there's a document that is not on your evidence proposal, but I can reference it in due course. For the MERIT doctors it's identified that in the event of a major incident they will provide direct support to the North West Ambulance Service operational and tactical commanders in the form of forward medical adviser and the Bronze and the Silver commander?

A. Yes, so at the moment we have two MERIT doctors on today, 24/7. If they're activated, those two will fulfil those two roles that you've just described.
Q. Thank you. I think additionally, in terms of your role that you have with NARU for the 15 HART teams, you had a son who at the time was himself a HART paramedic?
A. That's correct, yes.
Q. And he was part of the Merseyside HART team?
A. He was at the time part of the Merseyside HART team and not on duty on that evening.
Q. We'll come on to deal with that in a moment. I just want to finally then —— you provided your training records from North West Ambulance Service but I don't think they adequately reflect the extent of your experience and so you've identified your CPD documentation that's part of your re—validation process as a doctor. So perhaps I'm going to ask Mr Lopez if we could just identify one page of those documents just to give a flavour of your experience and training at the relevant time.
It's {INQ030913/16}. If that could be expanded, thank you.
Just if we work through together, just to give a flavour of your experience and involvement at the relevant time. We can see the first entry on the page,

on 24 June 2016 you're involved in a NARU CPD workshop for chemical, biological, radiological and nuclear attacks; can you see that?
A. Yes.
Q. If we work down, we can see in November 2016, you were part of a NARU national conference for 10 years of HART in the UK, a stocktake 10 years on.
A. Yes.
Q. Looking both at operations and some clinical standard operating procedures which had been attended by all HART managers from the relevant UK ambulance trust?
A. Yes, that was an opportunity to say, if you like what's gone well, what might we change, what are the aspirations.
Q. We can see reference to pre—hospital trauma life support course in April 2016. If we move down to 16 August 2016, we see there identified:
"Ambulance Intervention Team refresher training."
A. Yes.
Q. And I think it's right, if we work through these records, and I'm not going to do that, in the April of 2017 you had further refresher training to be part of the Ambulance Intervention Team?
A. Yes, I think the first training was undertaken with Greater Manchester Police firearms teams in 2013. And

then a six−monthly refresher up until essentially I retired from full−time. I think the last was in 2018.
Q. Thank you. If we work down again we can see in October 2016, again you had involvement in −− attended that course as the NARU medical adviser in respect of casualty care in conflict and crisis.
A. Yes, that's one example. We interface with our military colleagues −−
Q. We don't need to go into the detail of that. Finally, by way of example, in September 2016 you were involved in the NARU workshop, where standard operating procedures were drafted for MTFAs, particularly triage and early treatment.
A. Yes.
Q. So in terms of your relevant training and experience, would you agree that you had a great deal of knowledge and experience in respect of major incidents?
A. Yes. Throughout, that was the intention, and not wanting to self−certify, but peer scrutiny each year, both for the rheumatology and for the pre−hospital work, including major incidents, so my concern has always been to make sure that externally it can be judged as best endeavours, if you like, to be as prepared as possible.
Q. Thank you.
I'm going to ask you about exercising because we've

been provided with part of the preparation materials that North West Ambulance Service had created before a training exercise called Winchester Accord. I don't think we need to display the documents, but within that planning material you are identified as someone that was due to be part of the exercising for Winchester Accord in a role as part of the Ambulance Intervention Team. So we can see those in the documents and I don't ask for those to be displayed.
First of all, can I ask, were you involved in Winchester Accord?
A. No. So it's feasible (?) I would be invited because the flexibility of role would mean it would be really useful to attend, but in fact that was a Monday to Wednesday and I had a clinic on the Wednesday at Broad Green −−
SIR JOHN SAUNDERS: Okay, you couldn't attend. That's fine. Thank you.
MS CARTWRIGHT: For completeness, in the document, {INQ013559/18}, you're identified as "AIT uplift staff". So what does uplift staff mean, please?
A. It's the AIT role that we discussed earlier, so the uplift is essentially −− was a budgetary device to allow ambulance services across the country to invest a little bit in that AIT team.
Q. Can I ask then, as part of the materials provided to

you, I think some debrief information about Winchester Accord was provided. Can I ask, did you play any role in the debrief of Winchester Accord?
A. None. As you say, I was provided with that debrief information with best intentions by the team, and I read it, but I did not play any part in it and I have not seen it until it was provided as part of this process.
Q. Thank you. Then just to complete the questions around Winchester Accord, did you play any role in taking forward recommendations from Winchester Accord?
A. Not personally, directly, because within NWAS that would fall to others directly. There are systems for sharing learning from exercises that would be part of a national system known as JOL, joint organisational learning, which is allied to JESIP, which the inquiry will no doubt be aware of. So indirectly, I may have become aware, but directly, to answer your question, no.
Q. Thank you. Can I ask you then, with you mentioning JESIP, did you have good knowledge, as of May 2017, of the JESIP principles?
A. To be honest, not as good as I have now. The slightly less complete answer is, yes, enough to undertake the role. I had some exposure. But since becoming an actual MERIT doctor, 2018 to 2021, the detail of that is part of the training and in the morning there's a little

mini−test for all of us, so you have to −− and so comparing my understanding of it now with then, I had less understanding then.
Q. Can I ask you then, as part of the training you had to be operationally able to function in the AIT team, which has its role with responding to MTFAs, as it was at the time, did you have knowledge of the "Responding to a marauding terrorist firearms attack and terrorist scene: joint operating principles for the emergency services, edition 3" or JOPs?
A. "Yes" would be the short answer. It's part of the initial and continuing training that we would do.
Q. We've dealt with Winchester Accord, but had you been involved with any other training exercise where there'd been the tri−services or the three blue light services exercising together?
A. Over the years, I've been involved in lots, including −− it depends whether you mean directly MTFA or other major incidents?
Q. Yes.
A. Because in terms of other major incidents, for example there was a three−day event based at Cheshire Police where it was 24/7, round the clock, including press briefings and so on. So lots and lots of exercises over the years. We can probably list them if you really

wanted to.
Q. As of May 2017, did you understand the importance of there being co-location and --
A. (Overspeaking) yes, yes.
Q. Did you understand the importance of a forward command post?
A. Absolutely, yes.
Q. And for there to be co-location but also interoperability between the three services?
A. Absolutely, yes. In JESIP, it's really based on the MIMMS principles, with additional tri-service co-location and so on. So it's part of the same knowledge base and operating principles.
Q. I'm going to move next to your involvement on the night, but before doing so, bearing in mind you've provided an extensive CPD, which evidences a number of years, is there anything else by way of relevant training that you want to tell the inquiry about that's relevant to your role on 22 May 2017 that we've not dealt with?
SIR JOHN SAUNDERS: That's a very open question.
MS CARTWRIGHT: It is. There's a lot of documents.
A. Some of my CPD, on reflection, would include working with the advanced paramedics, helping to develop that cadre of some 45 in the north-west. So that would include both educational sessions with them, learning

with them, but also helping to develop them, and also helping to supervise them when they were then -- by telephone, the so-called top cover support, undertaking difficult decisions once operational. I think that's probably relevant to interactions on the night when working with the advanced paramedics and the confidence that I had in their abilities and the way that I would then -- we will go on to explain, how we related to, for example, the advanced paramedics on the night.
SIR JOHN SAUNDERS: Just help me about one specific thing and just one only: in relation to the training of paramedics, and including within that technician 1 and technician 2, we've heard about the hierarchies, one of the most significant treatments which would have to be delivered on site at this sort of disaster was applying a tourniquet. Would you expect every one of those paramedics at whatever level, going down to technician 1, which I understand is the lowest level, to be able to apply a tourniquet, to be trained to do so?
A. Now, yes, definitely. Ten years ago, definitely not. To be perfectly honest, I can't remember the extent to which it had been -- so it was definitely rolled out to the AIT because that was part of the kit.
SIR JOHN SAUNDERS: And HART?
A. I would say I think, yes. I think yes. My colleagues

will be wringing their hands in exasperation. But I think yes, I just don't know for 100% certain at that time all the way down through the grades.
SIR JOHN SAUNDERS: Thank you. Don't worry about them being exasperated: they'll be able to tell us later, so we'll get the information.
MS CARTWRIGHT: Thank you. Moving now to the events of 22 May, please, 2017. You tell us in your witness statement that on Monday, 22 May you were at home, when, at approximately 23.20 hours, you received a call on your NWAS-issued mobile telephone from a colleague, Michael Jackson, who was the NWAS chief consultant paramedic.
A. Yes.
Q. Can you tell us what Mr Jackson said to you at that time, please?
A. The precise words, I don't recall, but essentially it was: a heads-up, there's something serious, it seems to be real. Whether he actually said explosion or MTA, I don't recall, but certainly I was aware that it was something of that nature. So a serious and sizeable incident.
Q. When you described it as a heads-up, what was Mr Jackson asking you to do if anything?
A. Not directly asking me. Just to explain the

relationship, right back from 2001, we worked together at the senior management level in both Mersey Regional Ambulance and in NWAS and indeed shared an office as an example.
We've many previous examples of -- we would respond to similar serious incidents and we would keep each other and other relevant colleagues informed. We might not necessarily be informed down through the standard activation system. So he wasn't asking me to do anything, he was letting me know and the unspoken expectation was that he and myself would be responding if available, because I wasn't on duty, so if I had been unavailable then I wouldn't have responded, but I was available.
SIR JOHN SAUNDERS: You weren't being contacted officially?
A. Exactly.
SIR JOHN SAUNDERS: Would you expect to be contacted officially, bearing in mind your willingness to go out to these sort of events, by some control centre.
A. Formally, no, because I wasn't formally on call -- the associate medical directors have an on-call system and I was not formally on call. However, as part of the support to front line visible leadership and so on, had it been in Liverpool, which is more my natural location -- the control staff are very familiar because

I had been in there every New Year's Eve for 15 years, so there would be the informal relationship that would activate. But the Manchester group would not be familiar with my face or (inaudible).
SIR JOHN SAUNDERS: Thank you.
MS CARTWRIGHT: Within the earlier account from February of 2018, you indicate in that conversation with Mr Jackson, "we agreed we'd be responding".
A. Yes, in a nutshell. The standard system will respond, but if this is, as it turned out, big and severe enough, then we would respond and see if we could support the core response.
Q. In terms of responding, in what capacity or role did you consider at that time you'd be responding? Or if you didn't, that's equally fine.
A. No, no. For example, we had exactly the same conversation when both of us respond to Grayrigg, the train crash in Cumbria some years previously. I think it was earlier in 2017 or possibly in 2016 when the Ellesmere Port explosion —— the new ferry explosion occurred and I responded to that. There's first of all a notification heads—up, but then there's very much an awareness that there are a number of levels at which one might be able to contribute, either hands—on and going with full clinical kit, or gloves off —— so for the

Ellesmere Port new ferry one, for example, I sort of arrived at scene thinking I might be managing patients but was redirected as the information matured to go to the more senior command level, which is fine. So as the incident evolves, as long as the controllers know that we're active, then we can be slid up and down according to either —— literally next to the patient or right back in police headquarters.
Q. You describe then contacting your son, Joseph Tunn, who we've already identified was a HART paramedic ——
A. Yes.
Q. —— who lived near to where you were. And I think he had been on duty earlier that day; is that correct?
A. Yes.
Q. Was your son also happy to respond to the incident?
A. Yes. He chooses to be part of the staff responders scheme where members of the NHS can respond to their local community when there are 999 calls close by, such as cardiac arrests. Given the nature of this incident, I felt it at least reasonable to offer him, in the same way as Mr Jackson had offered to myself, the invitation to participate, and clearly he chose to.
Q. Thank you. You've identified the timing of the call from Mr Jackson of 23.20. The North West Ambulance Service have provided various timings from data

interrogation. Again, I'm not going to display it, sir, but for your reference it will be {INQ040368/11}.
We can see from that data that you were allocated at 23.29.59. We are going to deal in a moment with transcripts of calls, but they post—date that time. Can you help us as to how it is you were allocated to that incident at 23.29.59, please?
A. Allocated is a mechanical incident where we are attached to the call. So if I'm driving to a 999 —— so, for example —— for —— well, anyway, for the legal log, it's important that we get attached to the job, and that's a thing that the ambulance control will do.
On the evening —— the time of arrival at the arena is pretty precise, but the earlier times are times approximate and as available. So we would start moving, but we might not even be allocated, because allocated means you've got to confirm with control that we're en route and we are attached to the job, so that everyone else can see that we are attached to the job, and that may well have been done after we had begun moving.
Q. Okay. I think we can see that you made your way to the scene in your vehicle MX1975.
A. Correct.
Q. Which would then be the call sign linked to the vehicle?

A. Technically it's linked to me, but yes.
Q. I think the calls we're going to look at in a minute are actually your son speaking to control; is that correct?
A. Essentially we went as a pair in my work vehicle and I did the driving and he did the communications en route because driving is on blues is quite a high workload and he was available to do the comms and was able to explore different communications channels en route.
Q. You say in your witness statement:
"During the period between receiving the initial call from Mike, telephoning my son, and leaving my home address, if I was not already dressed in my NWAS greens at the time, [you] would have quickly got changed into uniform and readied [yourself] to leave [your] property. [You] then collected [your] son from his home address en route to the incident and [you] recall that [you] advised NWAS emergency operations centre via the Airwave radio that [you were] making [your] way to the scene."
A. Yes.
Q. And that's the allocation I think we've just dealt with.
A. Yes.
SIR JOHN SAUNDERS: And they would need to know who you are and in what capacity you're going to attend, presumably, do they?
A. The designation MX carries that —— well

(overspeaking) -- well, in Cheshire and Mersey control -- well, it designates a medic, a medical responder. And in Cheshire and Mersey control, exactly as they'd done on previously incidents: he's on the job and we'll find out what he's doing as the job evolves. It's so that they know that -- for example, commanders can make contact or give updates or be comforted by the knowledge that support is en route.

SIR JOHN SAUNDERS: Yes, thank you.

MS CARTWRIGHT: You tell us in your witness statement that you drove to the incident using blue lights and sirens whilst your son, Joe, attempted to gain some further information as to what had happened via the Airwave radio.

A. Yes.

Q. You recall Joe making contact with his HART colleagues in an attempt to establish what Airwave Talk Group they were using so that he could listen in to the radio communications in order to gain a greater understanding of what had happened and to avoid us clogging up the Airwave telephone lines into control with requests for further information direct.

A. Yes. So there are first choice communication channels, if you like, and then there are second and third choice communication channels that we might be able to

informally use. So the first choice is directly by Airwave radio to ambulance control, who were very busy. And one has to ask the question: is my call really necessary? The supplementary channels -- with HART already en route, the normal way for HART to work is to be on a separate channel that they can communicate with each other for regular operational reasons.

SIR JOHN SAUNDERS: I just wonder whether we should short circuit this a bit. I'm always a bit nervous about communication channels because there are some things we're not always meant to be talking about.

MS CARTWRIGHT: We are not to identify the Airwave channel and I think that has been --

SIR JOHN SAUNDERS: I think we understand the point you were making.

A. Group calls, if you like, sir.

SIR JOHN SAUNDERS: Yes, okay.

A. There are ways of doing group calls which allow us to listen in to conversations in progress without interrupting. Is that helpful?

SIR JOHN SAUNDERS: Yes, thank you.

MS CARTWRIGHT: Can I ask then, because we've already identified that your son was a part of the Mersey HART team, would that enable him just to make contact with the Mersey team or the wider HART team? We have heard

about the Greater Manchester HART team. What was he able to access at that time as you made your way?

A. In detail, I can't remember which of the individuals he contacted, but he had been part -- he had been stationed with the Manchester HART team to begin with, so he was familiar with those individuals and then he, for family reasons, moved further west and became part of the Liverpool HART team. So he had access to colleagues in both groups and essentially making contact with them in order for us to be able to -- the critical bit is listening in without interrupting to the evolution of the intelligence around the event.

Q. Thank you. Just to give us an idea, was there a lot of traffic on the HART Airwave, if I can call it that?

A. Not a lot on the HART Airwave because they're pretty succinct. But there's a lot more traffic in other communication channels that were very busy.

Q. You describe in the first account you provided to the police in February 2018 that the communications were a mix of the radio channels, listening to that, direct contact with Liverpool emergency operations control, phone and Airwaves, contact with members of the HART team.

A. Yes.

Q. So did your son manage to make phone contact with any

specific HART team members?

A. I think he did. I think that was the one where we were having the conversation about which chat group -- shall we call it that? -- which Talk Group we're using in order for us to be able to listen in.

Q. Do you know whether any other situational awareness was provided from that HART personnel at that time about the incident or the evolving incident?

A. What you have in the log about the exchange of information was about the limit --

Q. Okay.

A. -- initially as we were on en route, so fairly succinct. Joe asked the questions, do we know if there's an active shooter, do we know if -- which of course we didn't at the time.

Q. Can we then look at the two transcripts of calls we do have.

Mr Lopez, if we could please display on screen {INQ034310/1}, please.

We can see at 23.34.43, Mike X-ray 1975, which you've already identified as your vehicle.

Control say:

"Go ahead."

"Control, this is Eddie Tunn and Joe Tunn making in Eddie's car. We're heading towards Manchester. Can you

give us any details whatsoever as to what's going on at the minute?"

To which control gave you and your son the following information:

"Yeah, roger that. Confirmed major incident. Shrapnel bomb explosion. Fire have confirmed up to now a minimum of up to 18 fatalities, numerous injured. If you can make to Thompson Street, that is the confirmed RV for now. That's Thompson Street. I don't have postcode I'm afraid. The fire station on Thompson Street. If you can make there and the Talk Group for managers..."

And that was given, which is operationally sensitive:

"Control, all received. Over."

To which that was confirmed. And then we can see a little further down:

"Can I just double-check: have we any reports of gunfire on scene? Just thinking about PPE. Over."

To which control respond:

"I'll just get that confirmed. I did hear PM mentioned gunfire, but I have not heard back since standby one."

Can you just identify, what does PM stand for in that context?

A. I don't know. I think it might be... I don't know.

Q. Thank you. So looking at this call, whilst you're not able to say definitively whether Mr Jackson told you about whether it was a bomb or not, certainly by 23.34.43, you and your son were aware that the incident was in respect of a bomb explosion?

A. Yes, that is correct. To be honest, we had a pretty fair idea, but that idea may change in the light of things emerging, and we went along this timeline you're taking us along, it becomes clear.

Q. Thank you. Then if we just see the follow-on transcript of the call at 23.36.18. Your son having -- I'm assuming it's your son?

A. Yes.

Q. Having asked about any reports of gunfire, control responded:

"Roger, that's confirmed, gunfire has been noted on the log. I've confirmed shotgun wounds to the leg. I'm just getting a new -- a new Talk Group."

And again that was given:

"New Talk Group is..."

And that's provided. Then your son confirmed he was switching to that Talk Group:

"If you get chance and you get any more info, feel free to pass it our way en route."

So your son having requested whether or not there had been gunfire, how did that alter what the discussion was taking place as you proceeded at this time bearing in mind control had told you there was confirmed gunfire and confirmed shotgun wounds?

A. Well, it helps to confirm that there is an actual incident with casualties, which isn't always a given at the start of the process. So I'd confirmed that we would certainly make in the direction of scene. We'd been given an RVP. And at that point, we would continue towards RVP, but make a dynamic assessment as we got closer as the information became clearer.

Q. I'm going to come on to that dynamic risk assessment in a moment. But before doing so, you also tell us in your witness statement -- I'm at your paragraph 13 now -- that you also recall at one stage your son asking a colleague, although you are unsure who, whether there was any confirmed secondary devices. And you believe he was advised that this could not be confirmed at that time.

A. Absolutely. I mean, obviously I love him dearly, but he and I both know it's an unproductive question because we will never get confirmation about secondary -- the absence of secondary device until the next day, realistically.

Q. Dealing then with your dynamic risk assessment as you proceeded, you say this in your witness statement:

"I had to decide en route whether to deploy directly to the scene of the incident as opposed a rendezvous point and my decision in this respect was multi-faceted: given my role as a senior clinician and my son's role as a trained HART operative, I was satisfied that our skills would be useful at the scene for what I understood to be a large-scale incident."

Correct?

A. That was our direction of travel. There was a dynamic risk assessment to be done before we enact that, but yes.

Q. You go on to say:

"In addition, I was satisfied that we were both well-equipped in terms of the training we both had received to deal with what I understood to be a serious incident."

A. Yes.

Q. "I was also conscious that the operational tactical commanders would be exceptionally busy, such that contacting them via the Airwave radio and waiting for their express direction to deploy to scene could delay my arrival as a senior clinician and was likely to distract the operational or tactical commanders from

other primary tasks they were required to complete."
A. That was the thought process at the time. It's slightly assured by subsequent events because we were still really going to the RVP, we were clearly going to be needed, and then the decision was RVP or scene, one or the other. They're not very far apart and you might want to come on to the rationale.
Q. You go on then to say this:
"In addition to these factors [that I have just read out and you have agreed], I was further reassured from hearing the communications over the Airwave radio that other unprotected resources were being deployed to scene such that I was able to conduct a dynamic operational risk assessment concluding that I felt safe that we should make our way directly to scene and determine our next steps after speaking with the operational commander."
A. Yes. So in theory, the rigid plan has us make contact with the command structure, go to the RVP, wait at the RVP until the commanders have got time to bring us forward. The decision which I made on the night, well, Joe and I made on the night, was the commanders are calling forward other unprotected resources. If they had time, we surmised that it would be reasonable for us to be called forward as well, therefore we will make

our -- in the light of that information, we will go directly to the control point at scene to shorten things.
SIR JOHN SAUNDERS: Obviously it's the right thing to do and no one will suggest to the contrary. But actually strictly, should you have done it or should you have just followed the direction that you go to the RVP, then you wait? Otherwise it's chaos if everyone decides where they are going to go for themselves.
A. Absolutely, which is why I made the reference to -- well, both the reason for the -- well, first of all, the background and, secondly, the dynamic operational risk assessment and, thirdly, the reporting to the control point because it's not just avalanching into scene in an uncoordinated way, it's ... The processes would have been followed, the outcome would have been the same --
SIR JOHN SAUNDERS: We're not being critical, it's obviously the right thing to do.
A. I understand, sir. I think one of the realities that comes out of the rigid plans is they have to be flexible. Had we contributed to confusion, then there would have been appropriate criticism, but if we could reasonably anticipate that going to the RVP and then being called forward from the RVP, because others were being called forward from the RVP, if we could short

circuit that without harming the response then we should do that.
SIR JOHN SAUNDERS: Which you obviously did, yes.
A. Yes.
MS CARTWRIGHT: Can I ask then, as part of what you were hearing on the radio, you describe about other unprotected resources, and so just so there's no ambiguity, being called forward, what are you referring to and what do you mean by that, please?
A. So --
SIR JOHN SAUNDERS: You're talking about ordinary ambulance crews, aren't you?
A. Yes, in plain English, ordinary ambulance crews were being called forward. Now, I can't remember it word for word, there will be tapes of those conversations. I can't even remember which Talk Group we were in. But I could hear that those -- thank you, sir -- those other ambulance crews were being called forward --
SIR JOHN SAUNDERS: I'm not meaning to be rude to the crews by calling them ordinary.
A. Absolutely. They were being called forward, so we made the decision that it was safe enough -- it's never safe, but safe enough -- to begin work.
MS CARTWRIGHT: In making reference to the interrogation work that has been provided by the North West Ambulance

Service, we know from that data that you arrived at scene at 00.07.13.
A. That's my understanding, yes. To be honest, I'm not sure exactly what scene means, whether that's a geofence, you know, an automatic, or a recorded. But I think it's a perfectly reasonable time to work off.
Q. It has "GIS replay" next to that entry if that assists you.
A. That's following the radio, which we... I suspect that will have been... I don't know what they're defining as "scene".
SIR JOHN SAUNDERS: It's pretty realistic?
A. Yes, that's fair.
MS CARTWRIGHT: Can I ask then, as you arrived at scene, had you heard any other information as part of listening to that Airwave traffic that had given an update to what control had told you about there having been firearms discharged that had caused injuries?
A. No further explicit information, but clearly injuries and, as we have described, unprotected resources coming forward, so work to be done, and the surmise is that it's now safe enough to proceed, but not excluding, as we know from other incidents in 2017, not excluding the possibility that there may be other threats around.
Q. Had listening in to that Airwave traffic identified who

was in the command roles for North West Ambulance Service?
A. I honestly can't remember although I had no difficulty when we got there with the key commander.
Q. I was just wondering more broadly because obviously we're going to deal with who you had contact with at the arena itself, but at a wider level as to the command structure did you have any knowledge of others who were in key roles, command roles, as you arrived at the arena?
A. The short answer to that would be no because it'll all be happening in the background. It's kind of parallel process rather than serial. For example, who was in strategic role, who was in the tactical role and so on, no, no information at that time, because we will be briefed.
Q. Thank you.
A. In this case -- well, we'll be briefed when the practicalities allow it --
Q. Thank you.
A. -- which is essentially on arrival.
Q. Thank you. Had you received any information, additional to the transcript of calls that we've heard, about the number of casualties or as to the extent of the casualties at the scene as you proceeded?

A. I think -- well, I don't think there's any significant enrichment of the information beyond that quite rich information that there had been a significant, very sadly, number of fatalities and injured to be dealt with. So we had... When you're approaching these, you need to know whether it's five, 50 or a football stadium and we knew it was in the 50 to 100 order, that scale. We had an approximate sense of scale.
Q. Can I ask then to what sort of plan or discussion you and your son had had about what you would do when you arrived at scene?
A. We were just expecting to do our normal thing, which is we would find out what the command structure is, we would be able to offer a range of roles, we could take on a range of roles as allocated by the commander, so keep it flexible until we get there.
Q. Thank you. I think just to complete as well the dynamic risk assessment you completed about going to scene, you also indicate that:
"Had we arrived on scene and been told that we were to stand down by the operational commander, [you'd] have accepted his or her instructions without question."
A. Yes, absolutely. Quite often in these, we start moving towards and then before we even get there, we get stood down, we are stood down, because information emerges

that we're not actually required or, alternatively -- yes.
SIR JOHN SAUNDERS: I think that comment in your statement is specifically related to the fact that you decided to go straight there --
A. Yes.
SIR JOHN SAUNDERS: -- rather than to the RVP.
A. Yes.
MS CARTWRIGHT: You then just move on and you say:
"On arrival in the vicinity of the incident, Joe guided me as to where to park my vehicle. As having previously worked as a paramedic in Manchester HART, he was familiar with the incident locality. I parked the car on Victoria Street, just at the bottom of Hunts Bank. We exited the vehicle, collected our clinical equipment, donned our non-MTFA PPE, and proceeded up Hunts Bank towards the entrance to Victoria Station."
A. Yes. So there was a decision there about do we need the ballistic PPE or do we just go with normal clinical. And given the discussions we've had about other unprotected responders already moving into scene, and there's a delay in acquiring the ballistic PPE, we felt -- just get on with it.
Q. When you say "a delay in acquiring it", do you mean

(overspeaking) just putting it on?
A. Yes, putting on it. It was in the back seat of the car, but one always has to decide how much time you're going to spend putting additional PPE on versus getting to the patient, and it varies every day, depending on the nature of individual jobs, including one on Sunday, which required actually donning...
Q. Can I just ask you briefly by way of completeness for the transcripts we have of calls, we know from the GIS replay that your arrival at scene is recorded as 00.07.13. There's a further transcript of calls, and I'm not going to ask for it to be displayed because it's simply one sentence. Sir, for your record it's {INQ023583/1}.
At 00.04.30, the Mike X-ray 1975 puts out a call to the operational commander. So it just records:
"Mike X-ray 1975 to operational commander."
And there's no response. So was that an attempt by you or your son to contact the operational commander?
A. Yes, is the short answer. Can you just confirm the time of that so I can understand (overspeaking)?
Q. 00.04.30, lasting for 7 seconds.
A. So this is at 4 minutes past and I arrived at 7 minutes past, so I suspect that's at the time of parking, we're beginning to seek to make contact with the operational

commander, perhaps as we're walking up Hunts Bank, would be the natural thing to do, but clearly busy, so we just thought we would go face—to—face.
Q. Then can I ask you —— you've described about collecting your clinical equipment. Can there be clarity then as to what you had with you at that time, please, and available?
A. Essentially, full clinical kit, consistent with what a rapid response vehicle would carry so: airway breathing circulation, drugs, dressings, and so on, in the nature of the day job, responding to 999, one might be the ordinary resource, anything from diabetic to heart attack to trauma, so it covers that range of ——
Q. Would you have a defibrillator with you?
A. Yes.
Q. Would you have a major incident pack with action cards?
A. Yes.
Q. And did you take all of those with you when you left your vehicle and headed towards ——
A. I certainly took the clinical kit. I'm not sure I took the —— there's a sort of board that we use for counting casualties. I'm not sure whether I took that up because others had it as it turns out. But basically we took all the kit we thought would be necessary and then didn't have to use it, but that's a supplementary bit of

information.
Q. So can I ask you —— you described the board and you say you didn't take yours, but was there a board used that you have described that had the tally for patients, P1 through to P3, present at the station that you saw?
A. I know there was the command post just on the right—hand side of the entrance from the roadway. I'm not sure what exact system we... I can't remember what exact system. I knew that the commander that was there at the time would be keeping a tally as part of the standard training. We use a range of ways of doing it in rehearsing, including writing on the side of a white van if it becomes necessary. Seriously.
So we can have informal or we can use formal systems, it doesn't really matter as long as we make a decent record. But that's the command tally.
Q. But in terms of the board that I think you're describing was available in your vehicle that you didn't take, just describe what it is. Is it right that it allows you to keep a tally of all of the P1s, P2s and P3s?
A. Yes.
Q. It also enables you to identify the hospitals and the number of places that hospitals have been used?
A. Not directly. I mean, we have a separate way of doing that, which is the matrix, which was an extremely useful

part later on. But the boards are actually quite simple. Essentially, they are keeping a count.
Q. And then just —— sir, I'm wondering —— before we take the morning break, if you could just describe what you saw as you and your son left your vehicle and headed up towards the station.
A. We made our way through various layers of police, identifying ourselves as we went. They were helpful in directing us to the particular control point. We arrived at the control point, which will be familiar to everyone. I was drawn to or directed to the ambulance command little huddle to the right side. The entrance to the lower —— to the ground floor and a number of —— and evident that there was an access roadway with a number of ambulance vehicles parked to my right as we came up Hunts Bank and it was evident that the concentration of attention would be within the ground floor "inside".
Q. Can I ask then, in terms of the non—MTFA PPE that you had on, did that include a helmet?
A. Yes.
Q. Did it include clothing that identified that you were a doctor?
A. Yes.
Q. And did you have any tabards with you that would

identify at a major incident the different roles people were playing?
A. Yes, we do have tabards and I can't remember —— because I use a bulky kit —— a high—visibility doctor kit vest, which allows me to carry kit between patients without having to use a bag. So I think that will have been what I was wearing. I honestly can't remember whether I took the tabards up, ready to use. It'll be on video, but I can't remember exactly.
Q. Thank you. Then just dealing with that huddle that you approached, you describe in your witness statement, I think —— did that include Daniel Smith?
A. Yes. I'm reliant on the statement because my recall at this time is slightly more vague than it was at the time of making the statement. Dan Smith was just in the process, I think, of handing over to Steve Hynes. So that was happening, I think, just as we approached. There's a sort of "Don't interrupt, listen in, make yourself available, let them do their job and we'll then be told what we're doing".
Q. I think within the wider sequence of events we have had, that sort of handover, and particularly handing over the tabard from Mr Smith to Mr Hynes was at 00.02.
A. So that's just happened as we've...
Q. So can I just be clear, you approach the huddle. Who

was in the huddle then?
A. It will have been Steve Hynes. There was AN Other, which I can't remember who it would have been, that was standing beside him, perhaps acting in a support role. One of the ambulance colleagues. Because I don't work in Manchester, I don't necessarily know them by name and face.
MS CARTWRIGHT: I'm going to come on next to deal with that and what was discussed in that huddle.
Sir, I wonder if we could perhaps take a 10-minute break at this stage for our morning break.
SIR JOHN SAUNDERS: We'll have a quarter of an hour break. Is that all right for you?
A. I'm comfortable.
SIR JOHN SAUNDERS: Quarter of an hour.
(11.24 am)
(A short break)
(11.40 am)
MS CARTWRIGHT: Dr Tunn, you have described the individuals you saw as you approached the station. Can you describe what you were told as you approached those individuals, please?
A. I'm referring to my statement just to refresh my memory.
SIR JOHN SAUNDERS: Absolutely. Do it whenever you want to.
A. I know exactly what the functions were, but I just want

to ... Essentially get a bit of a briefing, agree some actions and begin those actions. That's the kind of headline to the paragraph.
I'm seeing here, item 19 in the statement: handover, brief outline of the geography of the incident, location of casualties, the location of the walking injured, the so-called priority 3, the P3s, that they had been moved away. I was advised that the upper floor, from my point of view now, was essentially out of bounds because the briefing clearly at that point was, at that time, there were no live casualties on the upper floor. That was now a police-controlled area and we clinical staff were no longer operating in that. So there was a clear limit in respect of upstairs and there was a clear understanding of two -- effectively two collections of patients, those on the ground floor and those P3s who'd been moved to one side.
SIR JOHN SAUNDERS: Just help me. We've heard that the CCS was set up at the bottom of the stairs and that the HART team set up a CCP actually nearer the entrance, indeed I think outside the entrance to the station, which sounds counter-intuitive.
A. I'm very happy to help and expand on that, but I'll take direction in terms of how much information you want.
SIR JOHN SAUNDERS: Is that surprising that the CCP would be

further out towards the ambulances than the CCS?
A. The definition of CCP and CCS -- CCPs will be usually informal, dynamic, the initial collection. They are often defined by what we're referring to as the zero responders and the affected public themselves. The dynamic of that, people will remove themselves from a fire, they will remove themselves from a gas explosion in a fairground or whatever it is, so the CCPs will be natural or contrived initial collections of casualties, usually evanescent, lasting only briefly, before then coalescing into a casualty clearing station, where more extensive equipment or interventions may take place and, generally speaking, HART is actually setting up a CCS and not setting up -- because one doesn't set up a CCP.
So I would suggest that the question is -- and I'll explicitly address the question of that geography, ma'am. But just technically, HART would be setting up a CCS, they're laying out kit, they're laying out treatment packs, they're laying out -- they can use tarpaulins, which help -- and it is explicitly part of the HART standard operating procedure that the first group will do a forward look and a second group will begin to prepare because there's a range of -- in a collapsed building, it'll be a while before the casualties will come out but we'll have a CCS ready to

treat them once we've got them to where we're ready to manage them.
On this occasion, there were things happening in parallel, so we may want to come on to -- I'm just trying to think, to get the chronology right. It would be reasonable, as a first estimate at the time, for the CCS, I will call it, being set up just outside the entrance to the ground floor. It would be reasonable as a reasonable first guess as to where would be a sensible place to put people.
SIR JOHN SAUNDERS: Okay.
A. What was happening in parallel with that, though, because I think that CCS was being set up at about -- just after the 23.00, at the top of the hour. It was somewhere in that first quadrant between 23.00 and 23.15, I think. At that time, patients were flowing down the stairs at the rate of one a minute is my understanding from the analysis. So at the same time as the instruction has been given to set up a CCS at a reasonable place to do it and as part of the standard operating procedures, my comments about the CCP -- there's a natural collection with the very well-intended and very helpful zero responders, the police, the arena, the friends and family themselves moving patients down the stairs.

So as there is an intention to set up the CCS at what seems a reasonable place, there is evolving what is initially a CCP by the nature of the incident before one is able to ——

SIR JOHN SAUNDERS: That develops into the CCS essentially?

A. That matures into the CCS because there's an opportunity cost around —— "No, we don't want them there, we want them here", and that involves —— that's an inefficiency that creeps in. So it's well—intended and it's actually useful later in the evening, the outside, but the reality was, "Thank you for setting that up, folks, but actually we're concentrating our efforts in here now for the time being".

SIR JOHN SAUNDERS: Thank you.

MS CARTWRIGHT: Can I just take you back to that first briefing you had as you and your son arrived? Can I just be clear that your son was with you as you approached Dan Smith and Mr Hynes?

A. Yes.

Q. Can you first of all, in terms of the briefing or the handover that you were given, give us some idea how long you were in discussion with them?

A. Not entirely sure, but it would be of the order of 2 minutes, something of that order I would imagine. Because it's a very brief METHANE report, the mnemonic

that we use.

Q. That's what I was going to say. You have just mentioned a METHANE. Was there a formal METHANE report given to you as part of that discussion you had?

A. The first METHANE given by the first crew is the formal bit. We try to teach that it's actually very useful to reuse METHANE during the evolution of the incident. So we use that as a framework because things like the exact number of casualties for example will mature as the incident goes on. So it will have been based on that but it will have —— so ——

SIR JOHN SAUNDERS: Did you use similar information to what METHANE would but wasn't actually a formal METHANE message?

A. Probably not formal, but essentially a METHANE message.

MS CARTWRIGHT: Can you confirm who was leading the information that was given? You have described a handover from Mr Smith to Mr Hynes. Who was the person giving the information or was it a combination?

A. I think it's fair to say a combination.

Q. Did they explain who was the commander?

A. It was obvious at that time that Mr Hynes was and that I think Mr Smith was then moving to operate inside.

Q. So had you appreciated that Mr Smith had been discharging that role at an earlier time?

A. Yes.

Q. And was there anything said to you as to why Mr Smith was handing over to Mr Hynes at that time?

A. The why, no. It's not unreasonable that, in the same way you were talking about MERIT doctors before, it's not unreasonable that colleagues, paramedic colleagues, would decide to divide the roles between them, and as one takes over, the other might, as Mr Smith has very significant extended clinical skills ...

Q. So going to the exact number of casualties, were you told at that point how many casualties, first of all, there were and then the breakdown of those casualties between P1 to P3?

A. Absolutely not —— well, I really don't think so. There will have been a very rough estimate that all the ones in there are —— if the P3s have been moved, these are your P1s and P2s, and it's a visual impression ——

Q. When you say "in there", you are indicating into the station?

A. The ground floor, through the entrance and into the area as it widens out.

Q. You mentioned the geography of the incident and location of the casualties. Where were you told that the P3s were?

A. Generally speaking, the standard arrangement is that

they'll be moved to a safe location and also monitored because P3s may —— their injuries may evolve and they may become more ill.

Q. Were you told where that place was at that time?

A. Not exactly. I know they'd been moved away from the immediate seat. I had the impression that they were off to one side. Part of the technique for managing is to, in the early phase, not focus too much on the P3s. Yes, they're injured, yes, they've got distress and comfort and pain relief and so on, but actually the immediate life—saving need to be done on the P1s and P2s. So we tend to put them to one side and focus ——

Q. What in that 2—minute or so briefing or handover were you being asked to do?

A. Well, Mr Smith was then going back inside and I was then going to do... A formal designation of role, probably not, but a pragmatic... Well, first of all, an awareness of what other doctors might or might not be present and understanding what their competencies and qualifications might be, specifically in terms of the event.

Q. So just pausing there, had Mr Hynes or Mr Smith given you an idea as to how many doctors were already there at the scene?

A. At some point (inaudible: distorted) the ground floor

area.
Q. Can you just identify, was that Dr Daley?
A. At the time I had not previously met him. I have since been -- he has been identified to me, to use that phrase, as Dr Daley, yes.
Q. So you're saying there was no formal designation, but I just want to be clear, because when you arrived at scene you were quite prepared to stand down, having chosen not to go to the rendezvous point but go directly to scene. So no formal designation, but what were you told or being asked to do?
A. Well, effectively, begin one of the -- let's say the forward doctor role. When I reflect on the incident on the night, there are action cards, 17, 18 and 26, 26 or 28, which define those roles. Now, having just been handed over a very brief handover, it's then a question of: let's work out which of these ones I'm going to focus on. Obviously keeping in -- all of them require being advisory to the command structure, so they're all advisory, not command roles. And my initial first few minutes is: let's think about this flexibly, we've got a choice of possibly three roles, let's find out what we've got already, understand the resources available to us, and then we would naturally have a conversation about, right, I'll do 7, you do 8, 17, 18 and then 26.

So effectively I undertook, I think, 7 -- elements of -- sorry, 17, which is the forward doctor, 18, which is the medical incident adviser, and 26 or 28, which is in my pack, which is -- but it's in the major incident pack anyway, which is effectively loading support to -- loading them up, to be honest, was the main job of the night was loading.
Q. Can I ask, you're sat here today telling us of those three action cards and roles, but should it not be a case that you are given a role in accordance with the major incident response plan and the action cards, rather than deciding which of the three you were or doing all three, that actually someone should be commanding an individual into that role?
A. There is an element of that, but not entirely, because we have to decide which ones are the priority. So we have to decide what resources are available to us, so who have we got, what are the roles, and so it's a conversation with the commander rather than a directive, because the commander doesn't know at that point exactly who he's got, what the competencies are and so on, so my job is to support the commander and have the conversation: right, I'll have a look, let's see what we've got, I'll let you know where I'm up to, and we'll decide, if you like, together. So it's

a joint decision.
Q. You're describing a joint decision, but I just want to be clear, as you arrived on the scene, having deployed directly to the station rather than going to the rendezvous point, whether actually at that stage there was a discussion of, "What role do you want me to perform now I am here"?
A. Yes, absolutely.
Q. Did that take place at that time?
A. Yes. But it was actions rather than role. So link with Mr Smith. Effectively that becomes the forward doctor in the arena and at the entry point.
Q. In terms of the action cards themselves -- so you have given us a range of roles and action cards that covered, and I think you described action card 17, which would be the medical adviser MERIT doctor 1.
A. Medical incident adviser, yes.
Q. Action card 18 would be the forward doctor, MERIT doctor 2?
A. Yes.
Q. Then you described -- was it casualty clearing station medical lead or a loading support?
A. Yes.
Q. I think they're slightly different, but which was the third action card that you're indicating could have

covered the roles that you were discharging at the scene?
A. Particularly loading. Particularly loading, which is 26 or 28, I'm not sure. I can find it here if that would help.
SIR JOHN SAUNDERS: Don't worry. Thank you.
MS CARTWRIGHT: Again, to have yourself sort of covering many different roles that are covered by different action cards from the major response plan, is that something that you'd expect to happen rather than having a dedicated role?
A. Yes. The short answer is yes. And it's not necessarily a bad thing. There may be no doctor at a major incident, depending on the nature of it. In some parts of the country, there is nominal cover but not necessarily the intense level of cover that we have in the north, the developed cover that we have in the north-west. It's even more developed now than it was in 2017.
So I think it's perfectly reasonable -- if you read the cards individually, they are distinct roles. But the question I would pose to myself is: so who's going to decide who's doing which roles? The commander is very busy commanding the ambulance resources and it's up to the first doctor on scene to do a reasonable --

SIR JOHN SAUNDERS: Okay, you've got a limited number of doctors, they've got a number of things they've got to do, and it is a matter of prioritising them and doing more than one if you don't have enough doctors?
A. Yes. Thank you, sir.
Your question is suggesting that the commander should be explicitly allocating roles. I think the commander explicitly allocated an area of responsibility, which I was happy to take on and organise those roles myself. I think that's perhaps a constructive way of describing it.
MS CARTWRIGHT: Can I perhaps progress the matter a little further before moving on. Action card 17 is for MERIT doctor 1, whereas action card 18, forward doctor, is envisaged for MERIT doctor 2. We do have another MERIT doctor at the scene, a Dr Gleason.
A. Yes. And the time of arrival ——
Q. I don't have that immediately to hand.
A. —— was I think 00.20, so after myself. So at the time of my arrival, we've got... On the... On the list of doctors, we've got their times of arrival, and in essence the one who was formally on call went to the RVP and then was deployed forward and arrived after I had. So naturally we had a conversation at some point during the evening about, do you want

to carry on, a perfectly amicable conversation about how we would organise. But at the time I arrived he wasn't on scene. I think I'm correct in saying that, I'll just check my... I've got it here... A list of doctors in my 17...
(Pause)
So on the list provided to me by the team, I'm not sure whether this is a...
SIR JOHN SAUNDERS: Do tell us what it says on there and we can identify it later if need be.
A. Technically, the on—call MERIT forward doctor, was he on call? Yes. Time allocated, 23.44. It says on this briefing:
"Arrival at RVP, not specified. Arrival at scene, 00.40. Collected by NWAS..."
(Pause)
Sorry, there is an inquiry number here, {INQ022520/1}, referring specifically to his arrival at scene.
So the point being, I was there before him so I could begin to undertake some of the responsibilities and then, as more arrive, we begin to make sensible decisions about the division of labour. And indeed I did morph from one thing to another.
SIR JOHN SAUNDERS: You said the main thing you were doing

was loading, one of the main responsibilities. What is your function at loading?
A. I'm very happy to deal with that but and I'm just conscious of the sequence because it comes later in the sequence.
SIR JOHN SAUNDERS: Fine, okay. We're getting slightly bogged down.
MS CARTWRIGHT: Can I just be clear? Because at the moment we have the expert report which has considered the different roles various NWAS personnel were performing on the night and within the table they've indicated that you were the medical adviser so I just want to be clear in your mind as you Read arrived and after you'd had that original briefing, you were essentially doing a combination of action card 17, medical adviser, is that correct, action card 18, forward doctor? You're nodding. You have to say ——
A. Yes. Sorry, ma'am.
Q. I just want to be clear: action card 26 is casualty clearing station medical lead. Is that the third role or is it something different? Is it the loading officer that you envisage?
A. Loading and —— I can find the exact one.
Q. Action card 16 was loading point officer. Action card 16A is loading point log. What's the third action card

that you're thinking of as the third one in your mind?
A. So I have a hard copy here, so if I can just have a moment to find it.
(Pause)
I know what I did, but just in terms of the... I think the external experts can tell you what the rigid outline guidance is and the reality is we adapt and the question is: did any harm come from the adapting, and I think the opposite, to be honest. But that's an opinion rather than a...
So I have action cards —— yes, okay, action card 26, casualty clearing station medical lead.
Q. In that briefing, what then was your son? Did he then join the HART team or did he ——
A. He became part of the resources, a generic resource inside, supporting his colleagues.
Q. Can I ask you then, in terms of that briefing you had, the chairman has asked you questions about casualty clearing stations and casualty collection points, but from your perspective did you see anything when you were having this discussion that indicated any casualty clearing station was outside of the station at that time?
A. I'm certainly aware, but exactly at what point I became aware, that we had the large coloured tarpaulins

outside, which helped to designate places where casualties might be gathered. Those are the yellow and red tarpaulins that are used, deployed by HART.
Q. Yes. Do you recall whether you noticed them in that area where you were having your initial briefing or handover?
A. From memory, we've got the entrance, there's the commanders to the right, and I think -- and I certainly know later in the evening we were working on an area outside the entrance, I think under the canopy to the left-hand side of the entrance as you are facing inwards.
Q. Did Mr Smith or Mr Hynes say anything to you about, "There is a casualty collection point in this location", or, "There's a casualty clearing station here"? Was there anything specific said about those things?
A. No. Well, I think the indication was our casualties are gathered here, the exact use of term CCP versus CCS, as we discussed before, it was maturing from the one to the other. So I knew exactly where we were going to be working, I knew what I was working with, I knew where the casualties had been collected. It was independent of the designation CCS and CCP that were evolving.
Q. Was anything said to you about zones during that initial handover?

A. I can't remember exactly, but essentially upstairs was out of bounds and by inference the hot zone. The casualties were being gathered together -- you can have a conversation about whether the ground floor was a warm zone or not and we never really know until the next day when the place has been searched, for obvious reasons. So we have a de facto warm zone, where we're working with -- yes, so we have a -- and then there are areas outside which, as far as we know, are cold.
Q. Can I ask you, just so there's clarity: before you went in, was anything said to you by Mr Smith or Mr Hynes about the area you were about to go into, what zone that was?
A. I don't recall precisely what words were used.
Q. You have described the upstairs, the City Room or the higher floor, I think you've referred to it, as the hot zone. So what are you meaning by hot zone? What are you meaning by using that label?
A. To be clear, that's a designation that I'm using today. What the actual designations were at the time, I'm not sure what the designations were. But effectively, the scene of the insult was up there somewhere and I did not at that time have an understanding of the exact anatomy, architecture of the building but up there somewhere. The requirement to know whether it was hot or not was

irrelevant because it had already been designated out of bounds and this was our area for working.
Q. Was anything said to you about a marauding terrorist firearms incident or whether an Operation Plato had been declared at that time?
A. I'm pretty sure that I had no information about that at that time, formally, of that information. Clearly you can tell from the transcript en route, we have that in our minds, but the designation of Plato... It's not a primary concern for... It has implications for other elements of the responders. There's certainly implications from the point of view of risk. In theory, some areas are out of bounds until the police allow us to access. So all of those are considerations. Fortunately, on the night, we didn't know -- I didn't know enough to stop me getting on with casualty care.
Q. I'm asking you those questions because within the JOPs 3, a hot zone in a Plato is a specific terminology. So when you're describing the City Room as a hot zone, I just want to be clear, you're not describing that in a JOPs 3 hot zone categorisation?
A. To be honest, we use it -- so it can be used in that formal sense, but we also use it for everyday issues, you know, a school chemistry lab with an explosion, with volatile chemicals, we'll just say that's a hot zone and

we'll work in the corridor outside, for example. So it's used more broadly as well as in the very formal Plato sense.
Q. I think you described it a moment ago as "hot zone as to the scene of the insult". I think that was the phrase you used a moment ago.
A. Yes.
Q. So just looking now with your NARU hat on and your responsibility for HART, does having the same terminology to describe an area that means different things not potentially lead to confusion when a hot zone in a Plato sense means something different to how you're describing a hot zone?
A. I think the hot zone in the general sense indicates risk and areas into which unprotected responders should not go. And that is of value across a wide range of incidents and is important in protecting staff and members of the public. The additional layer of Plato is ... it adds complexity. The exact...
SIR JOHN SAUNDERS: Sorry to interrupt you, but the point is we've heard that for a hot zone in Plato, no one goes in until the armed police say it's clear. So you don't work in there.
A. Yes.
SIR JOHN SAUNDERS: A hot zone in a major incident means

people can work in there, but they need the protective clothing to do it. The simple issue is: having the same description, hot zone, for two different things, can that lead to confusion or does it just mean it's the top area, the most restricted area in whatever thing you're in? So does it lead to confusion?
A. I think the short answer to that is no because who's going to go into the hot area? Only protected responders. Protected responders will then follow a very clear protocol, whether it's a Plato hot or a generic hot. They will follow a very clear protocol about access. So the designation of hot means protected. In the generic sense, it might allow HART to go forward on their own dynamic risk assessment which is a formal process. If Plato is in place then that would form part of that assessment and they would not be able to access unless ... It's just an additional step. So I don't think it actually causes confusion given that HART, in ambulance terms, would be the only ones accessing a hot zone and the process for stepping into any hot zone is very regulated.
SIR JOHN SAUNDERS: Thank you.
MS CARTWRIGHT: In terms of then, again, just to be clear as to, as you went forward, had you been told it was safe for you to go forward into the station where the

casualties were?
A. This is a conversation which is widely discussed for this and other incidents and is a concern for all of us because there's a designation of safe, which can take quite a bit of time to achieve. There have been a number of incidents in the last year, 2 years, where waiting for absolute clarity about safety has compromised -- has potentially compromised patient care and coroners have expressed interest.
So absolute safety is not going to be a conversation that we're having because we can't have that -- we can't get to that stage, except in retrospect. So I'm using the expression "safe enough", and it was -- both the direct and the indirect information was it was safe enough. So the direct is Mr Smith is working in there, he's not in protective equipment, so the inference is it's safe enough. We've got unprotected responders being called forward because clearly there's been a decision to allow them to work there. So if it's safe enough for them and the members of the public and the injured people themselves, it's safe enough for me.
Q. In terms of that being safe enough, was anything said to you about the joint understanding of risk from the other blue light services? Was anything said at that time?
A. So I would surmise that that would be on the other side

of the commander, as it were. So what I'm getting from the commander is -- the commander and the informal... that I have just described is that on the other side of the commander those conversations have taken place. I'm not party to those. We are in here, in greens, so we'll get on with it.
Q. So would it have been any part of what you were asking about where the forward command point was, who the other commanders were from the other blue light services? Would you need to know that?
A. In that particular role, no. The commander is absolutely -- the ambulance commanders absolutely need to know and there may be some specific item, if there was a particular thing, the medical incident adviser might need to liaise with, in conversation with the ambulance commander, a Fire Service colleague about a particular toxic chemical or something of that order, but that would be a sideways conversation with the permission of the ambulance commander. Effectively, for my job, I didn't need to speak to any of the other services.
Q. So leaving action cards to one side and labels, the reality as you left that huddle or handover was -- what was the role you were going to do?
A. Okay, so what I did was -- so I'm aware that now the

ambulance commander is looking to me to effectively be the MIA, the medical incident adviser, for now, because there isn't another person who's taken that role. That's fine. I'm known and visible in the organisation, so that's acceptable. As part of that, I will do a walkabout to gain information because at the moment I'm not actually -- the commander doesn't need me to make any decisions at this point, he's already set up Mr Calderbank, in terms of transporting patients away from scene at some point, and we'll come back --
Q. Were you aware at that point that Mr Calderbank was doing that role?
A. I'm not sure at that point but -- he was -- what I -- in similar -- sorry.
SIR JOHN SAUNDERS: Let's just stop. We're at the moment going to go through what theoretically you would do, then followed by what you actually did. Can we just go to what you did and then we'll come back to the reasons for it if need be.
A. Thank you, sir, that's actually, I think, shorter.
SIR JOHN SAUNDERS: It's clearer. That's what's important.
A. Make contact with the commander, effectively be now formally part of the response, be given permission: go into the room, go round, have a look, see what we've got. My thought process at that point is: what's the

patient to staff ratio? In the very early stages of a big incident we may be at one or two members of staff to 50 patients. When we get to the hospital we've got 10 members of staff to one patient and so my question is: at that time what have we got? And it's roughly one or two members of staff to each patient. So that's enough for immediate life-saving care. So that's the first thing I want to know, together with a rough idea of numbers and roughly the limits of the geography.

Then I walk round briefly, just checking with each team of paramedics how they were, what they were doing. We have a system of, "What have we got, what do you need, are you managing okay with the initial life-saving interventions?" There were some patients who had a larger number and more senior people with them, I can recall individual -- not patients' names but individual colleagues. We would have a brief conversation. They would present me with their situation and tell me what they were intending to do. I would offer some element of reassurance, "We are here if you need me", but I'm going to go on round the room and come back out again having done that initial survey. Essentially, a hand on the shoulder, "We are here if you need us, but we'll let you go on with doing your job", which is what the patients need, not interfering with any of them, and

back out, having achieved that initial survey, and a notification to staff that if additional support is needed we'll start to think about how we support them.

MS CARTWRIGHT: You say in your witness statement:

"Having completed my initial sweep of the concourse, I was equipped with sufficient information to enable me to offer my assistance to the process of evacuating casualties out of the station and into an ambulance for onward conveyance to hospital. A line of ambulances was already queued up outside the station for this purpose."

A. At that point that's when I was either told or -- it was indicated to me that Mr Calderbank was the designated officer for arranging that flow away and so I was essentially paired with him. There were some parallel actions going on at the same time, but that became a large part of the rest of the evening.

Q. In terms of the definition in the major incident response plan for a casualty clearing station:

"Treatment within the casualty clearing station should aim to stabilise a casualty with a view to getting them to a definitive point of care as soon as possible."

The inquiry has had provided a document that identifies the length of time that patients were then in the casualty clearing station before being dispatched

to hospital.

For a number of P1 patients, their presence at the scene ranges from varying times, but some P1 patients were there for up to 3 hours. Can you assist us as to what was happening on the ground and why it appears that there was a lengthy period of time before dispatch of patients to hospital?

A. Right. So we were very clear that our location was approximately 10 minutes away from definitive care with large teams standing ready. We were very clear that we -- from a clinical management point of view, we wanted to get flow going and we did not want -- we didn't want to do anything clinical that was going to delay. We weren't going to do extended care because if you're remote and there's a long run-time to hospital, 50 minutes or something like that, then we might do things slightly differently. Absolutely minimal clinical interventions and then, "Let's load and go".

So the clinical management wasn't going to be slowing down -- there will have been one or two patients who were having initial paramedic management before being ready to load, but essentially we were keeping it to an absolute minimum because we were only 10 minutes from definitive care.

That's the absolute clear principle that was in my

head: let's get the flow going. That's why I was spending the time with loading.

There will be a range of severity within P1s, priority 1s, so some of the priority 1s should go first and some of the other priority 1s will go as soon as resources permit, and certainly, by choice, before P2s but not necessarily because sometimes the logistics just allow for a little bit of overlap.

So the clear intention -- there's no clinical reason why we should hold. It's entirely logistics and managing flow. To that end, we've been -- I've been looking at the type...

Three hours is a long time, a very long time, and for an individual patient it's not something I would want. As a headline, patients that I've managed in the last -- actual patients that I have managed in the last 7 days, again, without going into detail, but it can take 40 minutes easily before we leave scene for a single patient because we're beginning to manage them and so on --

Q. Can I ask us to focus on what's happening on the night, particularly because what may be being dealt with on an ordinary state of affairs is not necessarily the scenario when you have a patient with a P1 life-threatening injury that needs --

A. Those 40 minutes refer to everyday P1 patients. However, if we look at ... It's referred to as ... It's logistics essentially. So the ambulance history analysis, which is the last ... 368.
Q. If we just display, please, Mr Lopez -- we've got the casualty clearing station map with the various information on, would that assist? {INQ040366/1}.
A. That's helpful. I'm familiar with that, and that handwritten -- those handwritten annotations which describe where the patients were. The times there are the times that they arrived in the -- as I understand it --
Q. Thank you, Mr Lopez. This is the document. So this is where we can see the times for patients, but additionally the categorisation.
A. Yes.
Q. And certainly can I ask in terms of then when categorisation and patients were re-triaged and their priority status changed, where would that be recorded?
A. So initially, the triage and re-triage would be done on the triage cards and there's space on the triage cards for additional observations and the triage cards can be folded to change the priority from a 2 to a 1, for example.
Q. Just pausing there for a moment, did you witness that

that was being completed in the casualty clearing station for all patients?
A. I couldn't say that was being completed for all patients but I could -- in the initial survey the paramedics knew what they were doing and they are trained to do exactly that. They should be familiar with the -- well, they will be familiar with the cards. They'll be doing observations, which is what they do every day, and if the patient's changing category -- well, first of all, they'll record the observations and, secondly, they'll change the status if that's happening.
Q. Can I ask you then in terms of those action cards that you describe that have P1, P2 and P3, do they have the ability to record the observations which inform the status of the patient?
A. That's correct.
Q. But equally, those action cards also have the ability for when the patient then is dispatched to hospital that the slip is torn off and left with the loading officer as a form of identification of who's been dispatched; is that correct?
A. That's correct -- just a tiny point of order there: they are triage cards, the action cards, referring to the roles in the major incident plan. But yes, the triage cards are what we are talking about.

Q. But in terms of -- you describe you had a role with Mr Calderbank in terms of -- as loading officer, my understanding is that that process wasn't carried out on the night, that the slip off the --
A. It's quite possible. I mean, he... The number of times that that's actually happened in the UK is quite small, so we do try to do it on exercises, but it's not always completed.
Mr Calderbank -- and we have a copy of his log indicating the nature of the patient and the destination hospital.
Q. Can I then, just in terms of high level, just deal with a number of topics.
For triage, your experience of what was taking place on the ground, was it that triage cards were being used as the tool for triaging but recording the patient observations?
A. Yes, that's the impression. It's an overall impression because I'm not getting -- as per the action cards, you don't actually get involved in individual patient care, but yes, the gist is that is happening.
Q. I think you describe in your witness statement that you didn't need to provide any direct hands-on medical assistance to any casualty.
A. Yes. I mean, and that's very much by design but if

there's -- in that initial walk-round, if there's an initial one where we think: actually, we're so short at the moment we haven't yet reached enough resources to manage the immediate life-saving, then I would assist in the immediate life-saving. But when we get to the established and under control system, then I should not really be doing that.
Q. You describe in your witness statement that:
"As more doctors arrived, [you] took a role in terms of allocating the more experienced doctors with those with less experience so they could work together."
A. Yes. So there's a ... There's a ... Patient care but also a ... Responder welfare issue where, with best intentions, some very, very young doctors without specific training responded because of their -- because they lived locally with best intentions, good Samaritan style. One has the option to dismiss, but also the option to align them with actual experience and that's the decision I made on the night, was to make sure that they were paired -- not paired, there was two teams -- that we formed two teams.
Q. Can I ask in terms of then the role that you've described that you had, is there anything else as you actually practically went about your duties that night as to a change in your role that we've not dealt with

that you wish to explain to us now?
A. Well, essentially, major incident medical incident adviser -- the direct workload of that was less because the shape of the incident, we had the additional doctors doing care. The next function that had to be done, still within sight of the commander, so still able to offer support in terms of -- because it is only an advisory role to the commander -- being able to offer support there but at the same time, "Right, could you also do this", which is basically get patients moving.
Q. "At no point during my being on scene did I provide hands-on care to any of the casualties. My role as an experienced doctor was to stand back in order to gain an overview of the management of casualties in its entirety, offering hands-off guidance as and when required."
A. Yes.
Q. "This approach allowed me to ensure that the treatment of all casualties were was appropriate and provided me with a real understanding of the prioritisation of each and every casualty such that I could assist, if required, with the decision-making regarding which patient was to be transported to hospital next."
A. Yes. So there's two bits to that. One is there's a bit about enabling the paramedics to do their job, the job

they're trained for but not that familiar with in real life because I think we know that an average paramedic may see one or two major trauma patients per year only. So there is in that situation a natural anxiety or distress, so going amongst them and putting a hand on the shoulder to reassure and allow them to perform to the best of their abilities was, I think, a contribution on the night. But also the explicit -- which was a kind of human factors element, which we do think generally is important, as well as the specific of, "Yes, tell me if you want something doing", but also, "You're doing fine, right, carry on, call us if you need us". So that's -- and enabling -- and then back out and then the second part that you describe.
Q. Can I ask in terms of that overview role that you're describing, was there an issue with provision of pain relief to the casualties in the casualty clearing station?
A. We... It's something I'm personally interested in developing. The priorities are immediate life-saving interventions and in this particular context the emphasis is on egress as quickly as possible. I do know that -- well, I understand, I can't say I know, but I do understand that some patients will have waited quite a period of time in order to receive pain relief, which

I'm certainly very sorry about. I'm aware that -- we had the paramedics and we actually had the morphine and indeed ketamine.
I think in the process, the matching of patients and analgesia, we could look at that and it's something we'd like to improve. It's certainly part of our objective. I can't say that we had a problem with the supply, but I understand that patients will have waited to receive analgesia, pain relief.
Q. It's right that you -- we can see from the information on the log that you were at the scene until 03.10 and you are recorded as clear at 03.40.
A. Yes. So the gap between the initial and the -- was essentially working with Mr Calderbank to finesse the matching of crews, basically supporting him in his work.
Q. And I think you describe that once all of the remaining casualties had been removed from the scene, you gathered all of the doctors that had been left and conducted a very short hot debrief where you gathered all of their contact details to ensure that follow-up welfare checks could be performed.
A. Yes. There's always a question in a major incident about were doctor checks all carried out as they entered the scene and many of them had entered the scene before the command and control structure was even put in place.

So partly for security reasons we want to know, right, the people that we've been working with in these two groups, who are they, and partly for welfare reasons, so took their contact details and emails, and some of the NWAS team did the follow-up afterwards.
Q. In terms of then the subsequent debrief that took place in June 2017, we've been given information that you didn't complete a debrief form, but were you involved in the formal debrief process for North West Ambulance Service?
A. This is the Etihad location?
Q. Yes.
A. Yes, I was definitely present. I don't know whether I filled in a debrief form, to be perfectly honest. I was shown a raft of the debrief forms to try and see if there was one that I recognised and I did not recognise one, so I think the answer is probably not.
Q. Can I ask you then, in terms of the debrief itself, would you be familiar with the content of the debrief?
A. Yes, I've been through -- I was there. One of my NARU colleagues led it (inaudible) and I've been provided with the range of comments.
Q. Can I ask you then in terms of just a number of matters -- I'm not going to go to the document for this, but I will come to the recommendations that touch on the

directorate. But in terms of the triage and treatment, the content of the debrief suggests that there was a lack of understanding from operational crews in regards to triage and SMART triage packs. You'll have seen that from the debrief?
A. Yes. Yes. So the packs are on... I think I'm correct in saying the triage packs are on all vehicles. If I had a wish list, then time to train front line -- additional time to train front line ambulance staff, perhaps even in parallel with other similar grades in the NHS, would be a definite wish.
So they don't get much training compared to other NHS professionals of same grade. They have trust manager training and that's about it, which is really very limited and it's highly competed for. So the reality in terms of how ambulance services have what doctors would recognise as study leave is just not afforded to the ambulance staff, so it is an issue.
Q. I'm asking you specifically about triage because there's an email where it identifies that you were taking forward matters relating to a triage review. So if I just go to the recommendations first of all and then if you could perhaps just assist us with that.
Mr Lopez, could we please display {INQ021289/17}.
In recommendation 14 it identifies a recommendation:

"A process for the use of either the triage cards or PRF..."
Can you just confirm that's patient referral form?
A. Patient report form.
Q. "... needs to be confirmed to enable clear identification of the patient's injuries and end location, what clinical information needs to be captured, clarity of where in the casualty management process the patient report form would be used."
The owner for that was medical director DW. Did you have a role with taking forward that recommendation?
A. Not specifically that within the directorate. I know there's reference to me being involved in a triage review elsewhere but not specifically within the directorate. Again, as we established at the beginning, not directly part of my portfolio within NWAS.
Q. So was there an issue on the night in the casualty clearing station of paramedics using the patient report form rather than the triage cards to complete the triaging of patients?
A. I think... I think... I think it would be helpful to suggest that, in some circumstances, triage need not be done at all and that PRF is the definitive preferred document when numbers permit. So triage is only an evanescent phase and can be skipped completely in some

incidents. So it should only be done as a step on the way towards definitive care. As soon as we're doing definitive care, then we can move on to PRF as a preferred option.
So there will be incidents when we miss out a CCP, miss out a CCS, miss out triage altogether, if resources permit.
So it would be entirely natural in an incident like this that a crew may start with a triage card and then, if they are waiting for transport away from scene, that they move on to using a patient report form if they're there for a reasonable length of time, although, to be honest, most patient report forms are usually completed in normal day-to-day events en route to hospital and fully completed after arrival at hospital.
Q. So just at a high level then, we can see the email where you're liaising with Mr Winchester. I am not going to have it displayed or go to it now. Just at a very high level, what was the triage review that you were involved in after the incident?
A. That's different. The bit that you've just described is the internal training of staff within NWAS for which I was not directly ongoing responsible. Yes, collectively, but not directly. However, external to that and actually as part of NARU, one of the other

debriefs indicated a very technical point on the triage cards which had arisen partly from, I think, one of the London coroners, where the triage cards applied to the dead. The coroners had expressed a requirement that the time of death and the qualification of the -- the identification of the person making that designation be recorded.
So explicitly I was requested by NHS England to review the nature of the triage card in terms of that coronial direction and the action following on from that was that cards were either replaced or a sticker was applied to allow those things. So that was a very specific bit.
There's been since then a -- and sort of in parallel, and Dave Winchester referred to it, there's been a review of the place of triage, in general, the concept, are we doing it well, it's done differently in other countries, so there's a wider review then.
Q. Then moving away from that triage review and you identifying that that is slightly different to what is being identified in the recommendations from the debrief after the incident, can I move on just to one other recommendation that has a medical directorate alongside it which was recommendation number 6:
"Staff should be familiar with what equipment or

drugs are available to NWAS during an incident."
Were you involved at all with that?
A. Sorry, I was distracted. What drugs?
Q. The recommendation that has the owner being JBDW in the medical directorate:
"Staff should be familiar with what equipment or drugs are available to NWAS during an incident."
Were you involved at all with that recommendation?
A. In taking it forward?
Q. Yes.
A. Not directly, but that's such a generic recommendation that staff should be familiar with the... That would be... That's entirely core training and education. I'm not quite sure what the specific ...
Q. We'll leave that for somebody else then if you can't assist us and I'll move on.
One of the other matters that's picked up in the debrief was that HART paramedics can't administer ketamine. Can you assist us as to why that's the position?
A. Yes. So the designation of HART, national designation of HART, is to deliver core paramedic skills into semi−permissive environments. Core paramedic skills do not include ketamine. However, ambulance services −− we've conducted, independent of the arena events, we've

conducted... I personally think that ketamine should be available to HART, not necessarily for major incidents but for particular HART incidents.
The standard of care available to patients in permissive environments has evolved because ambulance services have got extended role paramedics. Those are not able to enter semi−permissive environments.
In the UK, of the 10 trusts, I think six choose −− because the trusts are responsible for HART paramedic practice, although they are supported by NARU, the trusts look after them. So six of the UK trusts, their medical directors have decided to −− I think it's six −− have decided to deploy ketamine through HART. And I think it's four at this time who still do not deploy through HART, their directors choosing that it's core paramedic practice.
We have persuaded the National Ambulance Service Medical Directors' Group to agree that all HART will have ketamine and we're in the process of implementing that and it will be in place, I would hope, within the coming year.
Q. Thank you. Then finally this from me, please, Dr Tunn. Could I ask −− we've heard some little evidence about the Lifepak 15. So could I ask you this: what would happen in the case of a mass casualty incident where

there may be limited Lifepak 15s or the pack will be used on multiple casualties?
A. The Lifepak 15, for those that don't know, is a particular model of monitor and defibrillator. There's no real reason why the defibrillator, which is not an issue in this incident, but there's not a reason why the defibrillator can't be used on multiple patients, and either with that or other models I have personally done so, where it's been necessary.
The slight complication is that we work on a model of one patient, one ambulance, one Lifepak 15, and we record events on the Lifepak 15 because it's convenient to do so. You can make a little −− you can record a patient's ECG, for example. So there are a number of things you can record on it and I imagine if you move from one patient to another, those records might be corrupted. But it doesn't stop you taking the pulse oximeter and putting it on another patient or putting new defib pads on another patient and connecting the thermometer.
So the core bits can easily be moved around. The recording bit, which we use for convenience, would become a bit confused but in the circumstances I don't see that as an issue.
Q. In terms of the Lifepak 15, you wouldn't be recording on

there the medication a patient received, would you?
A. You can record an event −− there's an event marker which puts a button on the timeline and then you can add afterwards. So typically, when we're conducting a cardiac arrest, for example, we'll quickly press a button to say, "adrenaline given", and then we can replay it and find out whether we got the timings of the adrenaline right or not.
Q. When that takes place and a Lifepak 15 is used on a different patient, how is there an accurate recording of what that patient has had to make sure there's no overdose of a patient? If you were using a Lifepak to record the medication but then it's moved on and used for different patient −−
A. The Lifepak is not the only record. Yes, you can −− you can record it −− if you are working in the ambulance, you can record it and then you can finesse the timing of that because you know that you're going to be explicit on the patient report form and it helps to refine the time. But the primary record is the patient report form. So the Lifepak is only supplementary. The primary thing is either the folding card −−
Q. The triage card −−
A. (Overspeaking).
Q. −− or the patient report form?

A. Yes —— I wouldn't rely on —— especially in those circumstances.
MS CARTWRIGHT: Thank you. Dr Tunn, that concludes my questions.
Sir, do you have any questions at this stage?
SIR JOHN SAUNDERS: I'm not sure I've got an answer to this. If you could give it as briefly as you can so I understand it, I'd be really grateful.
It has been pointed out to you that some P1 casualties, from the time they came down into the CCS to the time they left to go to hospital, some of them were there for 3 hours. You said that's a very long time and you said it probably was logistics. Can you expand slightly on the logistics which caused that length of delay? The logistical problems.
A. It's not immediately my area of expertise, but I've spent a bit of time trying to understand it.
SIR JOHN SAUNDERS: Hang on. It's what you saw on the night because you were there. So what were the logistical problems on the night which caused the delay?
A. Well, first of all, you start off with virtually no ambulances available because we don't have a pool of ambulances waiting. They've already got patients.
SIR JOHN SAUNDERS: You have to get ambulances there?
A. And there are data available which I've seen, which show

that I think we had something like six in the whole of the Manchester area available and I have a list here, but there's a short list of available ambulances and a very long list of not available because they're with other patients.
SIR JOHN SAUNDERS: I understand that. First problem, getting ambulances to the scene.
A. That's the first bit. The second bit is the first ambulances that get to scene are, if I can paraphrase, not ambulances as you know them because immediately their crews have gone forward to deal with the patients. So yes, you have vehicles, but they're shells, if you like, because the first crews are with the patients and outnumbered initially and therefore dealing with perhaps —— I don't know exactly in the early phase but I've got the timeline. They'll be committed into there. So it's the second phase of ambulances that then come.
When it comes to the actual loading, we were trying to —— we initially were loading in one stream at a time, then we ended up with three streams. Mr Calderbank and myself made some dynamic decisions, we were matching up crews, their crew mate had gone off somewhere else, we were mixing and matching, just trying to do all the pragmatics to get things flowing.
We had something in the order of five, 10, 15, 20.

By 11.15, we had about 25 ambulances or something of that sort.
SIR JOHN SAUNDERS: We'll see the details of ambulances, yes.
A. The majority of those initial ones will actually be committed to patients.
SIR JOHN SAUNDERS: I understand that too.
A. So given that we've only got this number available, we've suddenly found —— and it's a tribute to the rest of the NHS that they've released the ambulances —— I was astonished at the number of ambulances that were made available.
SIR JOHN SAUNDERS: So it took a while to get the necessary ambulances there who were available to take people to hospital. So that's the delay, is it?
A. I think that's a very fair reflection.
SIR JOHN SAUNDERS: Sorry for cutting you off, I just need to make sure it's in my own mind and I understand it.
A. I appreciate the opportunity, sir, to help clarify that picture because it's the reality and I think detailed, you know, analysis of computer tracks and stuff will actually show that.
SIR JOHN SAUNDERS: Thank you.
MS CARTWRIGHT: There's some information that suggests ambulances that were used to transport P1 patients had

done other trips to hospital before, which don't seem to be taking a P1 patient and we've heard some evidence from Paramedic Hedges that she saw ambulances being used to take walking wounded. Did you experience any of that on the night?
A. I can say that I did not because, by the time I arrived, just after midnight, the command structure had been put in place. I'm aware anecdotally that ambulances were being flagged down as they approached the scene, for example.
MS CARTWRIGHT: Thank you. Sir, there are three core participants who have indicated on the Rule 10 process. There's a short area for Greater Manchester Combined Authority, from Mr Warnock, there's the family questions, and finally North West Ambulance Service themselves.
I'm conscious of the time, but I wonder if at this stage we could ask those three core participants how long they envisage they will need with this witness so we can make a decision. Mr Warnock, how long do you envisage you will be?
MR WARNOCK: In fact, you have covered the area I was going to explore, so I don't have any questions.
MS CARTWRIGHT: Thank you, Mr Warnock. On behalf of Mr Gozem, perhaps if I could come to him next and ask

how long he envisages he will be with his questions.
MR GOZEM: I would think about 10 minutes or so.
MS CARTWRIGHT: Then Ms Roberts on behalf of NWAS had indicated I think 10 minutes.
MS ROBERTS: A quarter of an hour.
SIR JOHN SAUNDERS: If it's all right with you, we will have a 10-minute break now, because I think we'll have to have a break, and then we will complete the questions then. I am very grateful for the shortness of time that people have indicated.
I understand your evidence is important, but it has taken longer than I think we anticipated. It's not your fault at all, it's because we're getting into details. So we'll do that. People must take the time they need to ask the questions, so we can get the answers.
MS CARTWRIGHT: Thank you, sir.
SIR JOHN SAUNDERS: So we'll break for 10 minutes, if that's sufficient for you.
A. Thank you, sir.
(12.55 pm)
(A short break)
(1.05 pm)
MS CARTWRIGHT: Mr Gozem Queen's Counsel will now ask his questions on behalf of the families via the video link.

Questions from MR GOZEM
MR GOZEM: Good afternoon, Dr Tunn. I'm asking questions on behalf of the families and I would like to begin by thanking you on their behalf for your contribution to the response on the night.
A. Thank you, sir, and my personal and my son's condolences to everyone involved on the night.
Q. Thank you.
I don't know whether you were able yesterday to watch the evidence of a HART team leader called Mr Schanck.
A. I did not. I was working elsewhere.
Q. Is he somebody that you know?
A. I know him professionally, yes.
Q. Can I just ask you some questions then about HART generally.
You played, I think -- and please tell me if I've got this wrong -- a significant role in HART training, didn't you?
A. I have been involved with HART in a formal capacity since 2016 when appointed to NARU. If I can illustrate, I spent three or four of the last weeks down at our base in the south of England, training new recruits into HART, working on their skills, particularly assuring the clinical skills that they're applying when they're

deployed into the hazardous areas, which is the core of the training that taking place in those courses.
Q. Yes. Are you aware that there is or was something called a team leader's ambulance Bronze commander's course?
A. I'm not exactly sure of all the different courses. I can speak to commanders -- the training that's going on for commanders at the moment. I'm not... Are you referring to specifically for HART?
Q. Let me try and keep it as simple as I can, which I should always do. HART team leaders. Are you aware, do you know, whether they have specific courses to assist them with their duties as HART team leaders?
A. Now, I have to admit I don't know the answer to that question. I'm very familiar with the courses that the HART undertake generally. I'm aware of the non-HART commanders' courses, but that precise bit, to be honest, I'm not sure.
Q. All right, thank you. Are you aware of or familiar with the NARU HART team leader action card?
A. I'm aware in general of what they do. The actual card wouldn't be something I'm immediately familiar with, but certainly I'm happy to explore the content with you.
Q. I'm not going to test you on the content. It's just this: we were told that that particular card, which

appears to be dated October 2015, hadn't been adopted by NWAS by May 2017. Can you shed any light on that? It may be the answer is a simple yes or no.
A. There is a gap between what NARU develops and what the individual ambulance trusts roll out. There is now a system of annual inspection by NHS England, supported now, from this year going forward, by CQC, so it gives a sense of the formality, with HART units being inspected on an annual basis. I think that's only in relatively recent years to ensure compliance with the core standards. So precisely that card in terms of the core standards, I'm not sure, but the system of inspection will certainly look at that in general.
Q. Thank you for that steer, that's very helpful.
The next topic is really about deployment of resources. I well appreciate that your specialism is clinical care, so I'm asking you these questions well aware of the difference between logistics, clinical care, and so on and so forth, I hope. In summary, you explained to the chairman the various factors that you took into account in deciding to deploy directly to the scene rather than going to the RVP, didn't you?
A. Yes, that's correct.
Q. I'm not going to go through those all now, but you did observe rigid plans have to be flexible, and one of your

aims was to short circuit the wait at the rendezvous point without harming the response. Have I got that right?
A. Yes, that's correct.
Q. Thank you.
Mr Schanck, who I mentioned a little earlier, was the team leader for the Liverpool HART, who were actually at the rendezvous point in Manchester at 23.43, so before quarter to midnight, and while, I think, you were still on your way.
A. Yes.
Q. They waited there until they were asked to go to the scene for a long time. They got to the scene just before 20 past midnight, 00.19.
A. Yes.
Q. And you'd got to the scene at 00.07. The question that I want to ask you is this: is there, do you think, a sensible proposal that HART team leaders -- well, there are two teams in the north-west, aren't there?
A. Yes.
Q. Might it be a sensible proposal to allow them some discretion when there is a major incident involving mass casualties to deploy to the scene because, as you, I think, acknowledged in your explanation, it's your experience that sometimes the EOC can become overwhelmed

and there can be delays in people actually being deployed from an RVP to a scene. So do you think there's an argument for them to be allowed discretion?
A. For an incident like this, my answer would be no. I'll expand. So first of all, my sub-executive role allowed a degree of constructive disobedience, if you like, on the night. It's really critical that we don't have that kind of constructive disobedience on the part of -- I know that you're not proposing that, you're proposing an explicit permission to negotiate, if you like. However, I think, particularly with HART, it's -- so first of all, we have to ask the question: was there any harm resulting from the delayed deployment? And I am looking in front of me at the number of other ambulance resources, including unprotected resources, that were on scene which were really large in number.
Obviously with family members in HART, I'm passionately supportive of their work. However, we have to bear in mind, first of all, there will be major incidents in the UK -- and lessons from this are to be generalised -- there will be major incidents in the UK where HART are not available because of geography first of all because they're not ubiquitous. Secondly, we're acutely aware of the modus operandi of a number of incidents across the world where multi-site untoward

incidents are happening deliberately at the same time. That pattern was certainly large in our minds.
So if I can even say it would not have been unreasonable to move Liverpool HART to Warrington, not to the RVP, in order to cover the rest of the region, and we frequently do that when we are deploying one HART, we may move the other one to a halfway point, perhaps even not deploying them into scene, because there's the worldwide intelligence that there is a risk of further -- and indeed on the night there were suggestions of, as it turned out to be incorrect, but there were suggestions of incidents arising elsewhere in Manchester, possibly linked.
So in terms of discipline, no. Yes, in terms of communication channels and a little bit of a conversation, perfectly reasonable, but not constructive disobedience on the part of HART and their clear awareness of the wider teaching(?) and tactical situation that requires holding back an element when we've already got some 25 ambulances in scene.
The small increment that HART may -- a second HART unit might offer in that -- I think we're allowed to say six individuals -- as opposed to being standing ready for other deliberate incidents is a tactical decision which I think was reasonable on the night, to be honest,

despite the fact that those individual HART members were passionately interested in supporting their colleagues.
Q. That's a very comprehensive answer for which I'm grateful, thank you very much.
You mentioned that you thought it was a decision of which in effect you would approve to hold them back there. Are you secure in the knowledge that it was a conscious decision as opposed to just the operation centre being overwhelmed?
A. So I understand and I simply don't know.
SIR JOHN SAUNDERS: Okay. Sorry, you're being asked things, and I think Mr Gozem will have to accept that the doctor actually doesn't know the answer to that.
MR GOZEM: Very well, very well. Thank you, sir. I'll move on.
Final topic. Can you help us with this? The deployment of BASICS and MERIT doctors. It seems that there were quite a number who had self-deployed. I think you have already mentioned that.
A. Yes.
Q. Is that an area that you can see might merit some consideration? Could it be improved, calling on those doctors to turn out for an incident like this?
A. So yes is the short answer. Those steps, I understand, are already underway. So declaration of interest, first

of all. Between 2018 and 2021 I was a MERIT doctor, so I'm aware of the processes and they are -- the two that are on call 24/7 from a rota of 35 individuals, 34 when I retire, will be called and will have particular roles. So whereas on the night I was perhaps flexing and adapting, there will be -- the system will remove the need for flexibility and the arrangements to get them there. So there was a MERIT doctor on duty on the night but he actually arrived a little bit later than me, hence the flexibility. But the arrangements to get them there quicker are in place.

The BASICS doctors, again a declaration of interest. I have been a member for a number of years and that's essentially a voluntary, charitable -- trained but nevertheless voluntary. They do not form part of the core response but they are widely used now in the north-west and there are very active groups in the north-west groups supporting day-to-day operations and they are in discussion with NWAS.

Indeed, the associate medical director who's responsible for this sector has himself been a BASICS doctor over the years. So it's maturing to the benefit of both the doctors so that they know when -- they know if and when to deploy and how and when they will be used.

MR GOZEM: Thank you very much indeed, Dr Tunn. Those are all of my questions.

Thank you, sir.

SIR JOHN SAUNDERS: Before the last questioner, I'm just going to go back on something, again just for my benefit so I can get it absolutely clear in my mind.

From your point of view, one of the problems in this sort of incident and getting casualties to hospital quickly is getting (a) ambulances to support them and (b) crews to take them there. Right?

A. Yes.

SIR JOHN SAUNDERS: When you have something like this and you have an RVP point -- and I quite understand why that is necessary, but equally it's absolutely vital, isn't it, that as soon as it is known that it is safe for ambulances to go from the RVP point to the, in this case, the arena, that they are actually told -- information gets from out of the arena, "It's safe, you can come"? I know you say nothing's ever safe and I understand that point. But within the reasonable margin of appreciation, it's safe for you to come, let's get them all here, don't send any more to the RVP, move them here. You may not be able to answer this, but in your view, does that happen satisfactorily or did it then on the night?

A. The short answer is yes. It was only in the last week or so when I was provided with the -- basically the arrival documentation for the ambulances and I was actually rather surprised at the number that went direct to scene and not to the RVP.

SIR JOHN SAUNDERS: That may be because at the initial stage they were actually being directed to Hunts Bank rather than to the RVP point.

A. I think that's a fair comment. Yes, I was trying to work out in my own mind exactly at what point the RVP became the preferred cause point.

SIR JOHN SAUNDERS: I think it's fairly quick, is my understanding, but I think some did go directly because they were told to go there directly.

A. The 28 or so or 26 that I'm referring to were by the quarter past the 11 quadrant -- sorry, just after the... By the time it got to 23.30, that number were at scene. Some of them subsequently, in later phases -- in fact indeed some of the same ambulances who took the first patients were recycled and went back to RVP which I think was reasonable because there's a limit --

SIR JOHN SAUNDERS: There would be traffic problems otherwise.

A. Exactly. It was just a pragmatic -- it was a way of making sure that the flow in was efficient.

SIR JOHN SAUNDERS: Who's doing that? Someone on scene presumably, is saying, "Send us some more, you can bring them up now"?

A. In the major incident plan there is a function. Let's not use individual cards or roles but there is a function of parking officer.

SIR JOHN SAUNDERS: And there was here?

A. Yes.

SIR JOHN SAUNDERS: As far as you're concerned it worked as well as it could?

A. I have to pay tribute to the very difficult decisions that were made early on. The fact that we actually managed -- I think it's extraordinary that the NHS in Greater Manchester and indeed the north-west released the number of resources because that's not something that happens every day. There was something in the order of 60 resources deployed, which is just extraordinary.

SIR JOHN SAUNDERS: It seemed to me a bit bad that when they told you to go to Thompson Street Fire Station, they actually couldn't give you a postcode, so you couldn't use the satnav, you couldn't use your --

A. Yes. I can't speak directly to that, but it's a very common reality because when we get a 999 call, the first thing we ask is location. And that's part of the first

phase of getting information. When we're getting supplementary information in, we don't start with postcode. So go to such—and—such a fire station or... And where is that? And that's not automatically —— it doesn't automatically have a postcode attached.
SIR JOHN SAUNDERS: But we do know, don't we, that on ambulances, the postcode is actually fed into the ambulance itself?
A. Yes.
SIR JOHN SAUNDERS: And then it takes them. So people at control must know the postcode.
A. Well, the location of the incident is fed into the data terminal.
SIR JOHN SAUNDERS: But not the RVP point necessarily?
A. Well, either the incident, and you touched on the incident —— exactly.
SIR JOHN SAUNDERS: I think you're right in this case it was the incident which was fed in actually as to how to get to it rather than the fire station. Anyway, as far as you're concerned, these systems worked pretty well on the night?
A. Yes. RVPs are well intended and quite dynamic and I've been —— I have personally in normal operations fallen foul of trying to get to the RVP and actually coming across the incident where there may be assailants

present, for example.
SIR JOHN SAUNDERS: Thank you very much.
MS CARTWRIGHT: Can I ask Ms Roberts to ask her questions, please.

Questions from MS ROBERTS

MS ROBERTS: Dr Tunn, five topics, please, which sounds like a lot and I'm hoping it won't be.

Topic 1, equipment. Is it right that upon your arrival at the scene you had with you what you considered to be sufficient equipment should it be needed?
A. Yes.
Q. Did you in fact need to use any of the equipment that you brought to scene?
A. No.
Q. Is that because there was sufficient equipment on scene when you arrived?
A. Yes.
Q. And from what you could see throughout the duration of your attendance at scene, did you or those around you lack equipment?
A. In essence, no. If you look —— and the support for that is the number of vehicles. People will take their initial response bags forward, rapid response, both from the ambulance and the rapid response vehicles. Now, we

might say, well, an individual item, you know, I needed this or I needed that, and it might not have been in the initial response bag. But there was a lot of kit and mine was a comprehensive kit which I've parked opposite the control point and didn't have to touch because we didn't need to deploy it.
Q. Second topic, stretchers. We heard a lot in this inquiry, and understandably so, about the means by which those who were extricated from the City Room were —— well, were taken to the CCS. I suppose, had stretchers been available in the City Room, they could have been brought down on stretchers. Were you aware from what you saw of the means by which people had been extricated from the City Room?
A. I can speak to stretchers in a second, but in terms of the specific question, I wasn't particularly aware of how they'd been transported down because they were mostly, I think at that stage, on the floor on the ground floor.
Q. Well, I'll ask you about that. Were you concerned that they were on the floor? Did that in itself give you any concern?
A. No. Clearly, we have environmental considerations, but this is in a sheltered environment, we're in a challenging —— it's a stable platform to work on, to

be honest. It's a smooth floor, we can get ambulance trolleys in when we're ready to move. It's actually not a difficult place to work and I would routinely expect to manage —— to do the initial management of patients where I found them if they're not in immediate danger. So if I found a motorcyclist on the tarmac, I will manage them there, and then move them to a more comfortable setting.

So it's a stable place, and in terms of stretchers, if I should mention that, but stop me if you want, the provision of stretchers has been mandated by NHS England to go on the revised mass casualty vehicles. I would just caution expectations —— and that will happen. But I would just caution —— so that's the next iteration, which is in the process of being rolled out. It would have been rolled out by now had it not been for COVID, but with NHS England approval that's just been slightly deferred, but it's about to happen.

I would just caution against expectations because they will not necessarily be in the right place when the next incident happens, with best intentions, with best plans. So I would not want —— if it's me that's a victim or my family, I would not want to wait for a stretcher. I would not criticise the zero responders for making best efforts to move patients from immediate

danger. That would be to be encouraged rather than wait for -- certainly from the point of view of comfort and dignity and even safety coming down the stairs, absolutely ideal. But in terms of the reality of the next incident or if it's a big enough incident, not enough stretchers or whatever, I would certainly caution -- the expectations would be that we would improvise in the very early stages with the best of intent, with due regard to dignity and safety.

SIR JOHN SAUNDERS: Just to follow up on that, are you saying stretchers on the mass casualty vehicles?

A. So...

SIR JOHN SAUNDERS: I know there are things called mass casualty vehicles. There was one in Manchester, which actually wasn't used on this occasion at the scene. Is that what you're talking about would have the stretchers on or are you talking about routine ambulances?

A. No, you've just referred -- so in two sentences, there is provision currently with some fairly hefty, not very nimble vehicles. There's been a review nationally and it was decided that those will be re-profiled into smaller, more nimble units. They will not only be used for no-notice events, but they will be used for planned events such as festivals and so on. That will allow the

local -- this is distributed around the country. That will allow better muscle memory in terms of familiarity with the vehicle, which then means that when we come to extraordinary circumstances, it's a familiar tool in the armoury.

SIR JOHN SAUNDERS: Thank you.

MS ROBERTS: Third topic, please, and it's the CCP. You told us that the CCP would usually only be in situ, as it were, briefly before coalescing and morphing into the CCS. I just want to ask you about the CCP because we have heard, or it's been suggested I should say, albeit in questions rather than actual evidence, that the CCP could have been positioned or might have been positioned on the bridge, that's the overbridge which leads from the City Room to the stairs down which patients were extricated. Do you have a view as to the positioning of the CCP outside the door of the City Room on the bridge itself?

A. Yes, I do, ma'am. The decision on exactly where to place a -- well, first of all, a CCP per se is not necessary. Likewise, a CCS is not necessary if circumstances permit. However, if circumstances demand then so be it. When one runs an exercise, the commanders on the ground might make slightly different decisions on different days, different teams might make

slightly different decisions.

I have to say I was relieved to be presented with the arrangement that I met at 00.07 and relieved that we were not split across two levels, which would have made oversight so much more difficult. It would have meant a second transfer down the -- so it potentially would have made egress even more difficult. So I'm not quite sure how that decision was reached, but from my point of view, managing that next phase, as we were -- and we acknowledge the length of time it took. But nevertheless I think -- first of all, I think no harm resulted from not working on the bridge, as you refer. Secondly, I think harm was avoided, potential harm -- it's difficult to be sure, but I think potential harm was avoided by the arrangement that had already been put in place, meaning a single entirely workable space where we could get an overview between P1s and P2s, for example.

SIR JOHN SAUNDERS: Apart from anything else, you said upstairs was out of bounds?

A. By that stage, but the inference is that a decision might have been made. But in the first few minutes after 11, when the indication was that patients should be moved downstairs, as I understand it from the CCTV, patients were flowing down the stairs at the rate of

about one to two per minute for about 20 minutes at exactly the same time as crews were arriving on the ground floor at about the same rate. So they were meeting on the ground floor in almost ideal -- given the horror of the incident but in almost ideal manner.

SIR JOHN SAUNDERS: Thank you.

MS ROBERTS: Fortuitously, my point 3 has coalesced into point 4, which you've begun to deal with with us, Dr Tunn. It's right, isn't it, that between 23.07, which is when the first patient arrived or was brought to the CCS until 23.42, when the last patient was down -- it's a period of about 35 minutes -- that 38 patients in total were brought down? So that more or less equates to the one patient per minute ratio that you have told us about; yes?

A. Yes.

Q. And you're aware, I think, also, that in total, 59 patients were conveyed to hospital that evening, so that would include the P3s, presumably?

A. I understand that that's the case, yes. There's always a little bit of an argument about exact numbers, even weeks afterwards, but yes.

Q. Final point, please. It touches upon the questions you were asked towards the end of your evidence and upon which the chairman has also asked you. It's the

logistics and it's an understandable concern that people will have as to why, having been extricated to the CCS, they were not immediately, or their loved ones were not immediately taken to the hospital.

I think you told us that at the point at which the explosion happened and the attack occurred at 22.32 hours, you told us that there were "virtually no ambulances available". And I think you said this, didn't you, that we, that's the organisation, don't have a pool of ambulances waiting? That's right, isn't it?

A. So we... The general picture is that we've got calls waiting for ambulances. We do not —— they're not calls, they're patients waiting for ambulances, not ambulances waiting for patients. Precisely on the night, I think the information provided to me was that at the time there were seven available, including urgent care, not normal paramedic, and there were some 76 in the Greater Manchester area which were actually with patients or were committed.

Q. The document you're referring to —— this is a reference for the lawyers and others who are listening, and for you, sir. The INQ reference is {INQ040950/1} to {INQ040953/1}. There are four documents in total. I'm not asking for them to go on to the screen. That's for people's references.

Dr Tunn, is that where you got the figure of only seven available at 22.32 in the Greater Manchester area, but 76 unavailable? And is it right that they were unavailable because they were treating patients and had been called to other people across the Greater Manchester area at that time? And again, within that documentation that you've seen, it's right, isn't it, that throughout the evening, and by which I mean to the early hours of 23 May, those calls kept coming in to the Ambulance Service, didn't they, requiring the attendance of other ambulances in the Greater Manchester area and in fact in the whole of the north—west?

A. Absolutely. I mean, the public ——

SIR JOHN SAUNDERS: I think we can understand that. People don't stop just having accidents or being ill and requiring to go to hospital because there's been an explosion, unhappily.

A. The public often respond really helpfully and reduce their demand on ambulance, but it doesn't disappear because people can't stop having heart attacks and so on or having babies, and I think that in some of the documents there is a reference to "it was already a busy night".

MS ROBERTS: Yes.

SIR JOHN SAUNDERS: I've heard that, yes.

MS ROBERTS: Thank you very much.

MS CARTWRIGHT: Sir, can I indicate, we've had a request, if we could just have a 5—minute break, there's one topic that the family members have indicated they'd just like to consider with their lawyers. I apologise, but could I ask you, please, to allow us 5 minutes just to consider whether they're going to be asking a question? They've indicated what the area is, it's in respect of stretchers.

SIR JOHN SAUNDERS: Yes.

(1.40 pm)

(A short break)

(1.45 pm)

MS CARTWRIGHT: Sir, thank you for allowing the time. The basis of a Rule 10 request has been made by Mr Cooper. I have indicated to you the nature of the question. He wishes to ask about stretchers.

SIR JOHN SAUNDERS: Okay, Mr Cooper, thank you:

MR COOPER: It arose very late in Ms Roberts' questions.

SIR JOHN SAUNDERS: I do understand that it has arisen very late in the day and to an extent it's a bit peripheral to this witness's evidence because, by the time he came, actually everyone had been moved downstairs in any event, so I have that in mind as well.

Questions from MR COOPER

MR COOPER: Thank you, sir. Let me shortly go to it. For those that are following, it's evidence that was given by this witness only a short time ago and is transcribed at [draft] page 111 of the realtime.

Just a short question for you, if I can, Dr Tunn. I also represent bereaved families in this matter. I want to remind you of what you said and just ask you a couple of questions about it. You said in answer to what Ms Roberts asked you concerning the mass casualty vehicles and stretchers —— you said this:

"So it's a stable place, and in terms of stretchers, if I should mention that, but stop me if you want, the provision of stretchers has been mandated by NHS England to go on the revised mass casualty vehicles. I would just caution expectations —— and that will happen. But I would just caution —— so that's the next iteration, which is in the process of being rolled out."

And you go on to say it would have been rolled out and you go on to say:

"I would just caution against expectations because they will not necessarily be in the right place when the next incident happens, with best intentions, with best plans. So I would not want —— if it's me that's a victim or my family..."

And you go on. And my simple question is this for you: why are your expectations a little lower then in relation to that? What's causing you to have those lower expectations?

A. It's not lower expectations, it's reality. So we will definitely have those and we will have a number. They will be distributed according to a plan which has been agreed with NHS England. I'm not directly -- well, NARU is supporting it. So they will definitely be there. But are they on the correct side of Manchester or Liverpool or London? They would be placed with analysis based on history, population, likely targets, all that kind of stuff. But it may be that the next incident happens somewhere more distant. So certainly they will be deployed and moved, and I've indicated that we're intending to make sure that they are used much more often and that muscle memory is very short and that they will be at the forefront of people's minds.

But the reality is that either the location that an untoward individual chooses for a deliberate incident or an accidental incident may not coincide. So a train crash, for example, may not be near one of these vehicles. Yes, we can move the scene, but I was really trying to make the point that zero responders will, I would hope, improvise and move patients away from

immediate danger using best possible means.

SIR JOHN SAUNDERS: I think I get the point. If there aren't stretchers there, you don't just say, "We're not moving them because we haven't got any stretchers", you do the very best you can and you improvise as necessary. I have no doubt that you'd accept that the best way of moving people, for the patients and everybody else, is put them on a stretcher?

A. Absolutely. That's why the provision has been made. It's not that I have lower expectations, it's just that I have to be aware of the potential for, unfortunately, the incident to be somewhere where the provision is not.

MR COOPER: Sir, that's clarified the matter in my mind. I'm grateful for the inquiry allowing me to ask that question. Thank you.

SIR JOHN SAUNDERS: Not at all. I'm sorry to have cut across you, as I always seem to do when people are asking questions.

MS CARTWRIGHT: Perhaps then for completeness, can I check that nothing arises from Ms Roberts?

MS ROBERTS: No, thank you very much. That was very helpful.

MS CARTWRIGHT: Sir, I have no additional questions. Unless you have, that would conclude Dr Tunn's evidence.

SIR JOHN SAUNDERS: Thank you.

I'm very grateful. You've done a lot of work into the topic as well before you came and you were able to help us that much more because of that, so thank you very much for your assistance.

A. Thank you, sir.

SIR JOHN SAUNDERS: We will now break off until Monday morning at 10 o'clock.

(1.51 pm)

(The inquiry adjourned until 10.00 am on Monday, 29 March 2021)

I N D E X