

**IN THE MATTER OF
THE UK COVID-19 INQUIRY**

MODULE 3

**Impact of Covid-19 pandemic on healthcare
systems in the 4 nations of the UK**

**WRITTEN SUBMISSIONS on behalf of
COVID-19 AIRBORNE
TRANSMISSION ALLIANCE (“CATA”)
for the preliminary hearing on
10 April 2024**

1. INTRODUCTION

- 1.1. These written submissions are provided in advance of the third preliminary hearing for Module 3, listed to take place on 10 April 2024 at the Inquiry’s hearing centre at Dorland House, and with sight of Counsel to the Inquiry’s (CTI) note dated 13 March 2024.
- 1.2. CATA are grateful for the opportunity to assist the Inquiry in pursuing an effective investigation into the impact of the Covid-19 pandemic on healthcare, particularly to ensure the preparedness for, response to and future readiness of the healthcare systems of the 4 nations to an acute respiratory infection pandemic. The Inquiry will recall that CATA is a multidisciplinary consortium which has brought together a wide range of different bodies and individuals which cover frontline and community workers, professional organisations, trade unions, and charitable bodies working in the four nations’ healthcare systems. This includes practitioners with a wide range of expertise, working across all healthcare settings, including paramedics, speech and language therapists, nutritionists, stroke physicians and district nurses, as well as experts in the prevention and control of diseases. In addition to the diversity of clinical expertise, CATA

members were practising in a number of different clinical settings, including in hospitals, in the community, or, (importantly for some submissions below), both.

- 1.3. In these submissions, CATA will firstly make some observations on important contextual background. We will then offer reflections on the Inquiry's rulings on the scope of Module 3. Our submissions will then examine: i) IPC Experts; ii) "Spotlighting" good practices; iii) Disclosure; and offer concluding remarks and observations.

2. IMPORTANT CONTEXTUAL BACKGROUND

- 2.1 SARS-CoV-2 is unequivocally an airborne transmitted pathogen: that is to say, it is carried in tiny droplets known as aerosols. These are sufficiently small that they remain suspended in air for long periods of time and, when inhaled, initiate disease. A common feature of all respiratory diseases is that the infectious person will expel aerosols containing the virus from the respiratory tract when they breathe or speak, as was clearly illustrated in Government public information broadcasts during the pandemic. People may also expel larger droplets, particularly when they cough or sneeze.
- 2.2 Droplet transmission is where larger (ballistic) droplets expelled from an infectious person's nose or mouth happen to land directly upon another person's mouth, nose or eyes and initiate disease. Fomite transmission is where the infectious droplets fall onto a surface which is then touched by another person. The virus does not enter one's body by permeating the skin (unless damaged) but relies upon the person then transferring the infectious material to susceptible mucous membranes of the mouth, nose, or eyes.
- 2.3 Where a virus is airborne, people need additional protection against virus-containing aerosols. These need to be filtered out to prevent them being inhaled e.g. by a filtering face piece respirator such as FFP3 or other respiratory protective equipment (RPE) such as elastomeric or powered respirators. FFP3 respirators not only provide physical filtration, but also trap contaminants using electrostatic charges and further entrapment by Brownian motion. The risk of airborne transmission can also be reduced by providing good ventilation to remove the virus from the room. However, general room ventilation is insufficient to disperse the plume of aerosols around an infectious patient. RPE is needed to protect healthcare workers providing close-quarter care.

- 2.4 CATA contends that at the onset of the pandemic, there was no evidence that COVID-19 was spread only by the droplet route. On the contrary, observational studies and prior knowledge of other similar viruses indicated a reasonably high probability of the airborne route playing a significant role in COVID-19 transmission. This was the hypothesis followed in the US, in Europe and in many other parts of the world. Indeed, in many workplaces across the UK, the application of the Control of Substances Hazardous to Health Regulations (COSHH) meant that airborne precautions were presumed to be obligatory and, in any event, the ‘precautionary principle’ - the fundamental tenet which underpins health and safety legislation - should be applied in the event of any uncertainty.
- 2.5 On 10 January 2020, the Government declared SARS-CoV-2 (then called Wuhan novel coronavirus, WN-CoV) to be a high consequence infectious disease (HCID). Consequently, “airborne precautions” (e.g. FFP3) were prescribed in each version of Infection Prevention and Control (IPC) guidance through until 6 March 2020. However, on 13 March 2020, the Advisory Committee on Dangerous Pathogens ruled that SARS-CoV-2 was no longer to be defined as an HCID, with IPC guidelines restricting RPE use to so-called aerosol generating procedures (AGPs) “hotspots” such as intensive care units. For all other infectious SARS-CoV-2 patient care, IPC guidance required the use of fluid resistant surgical masks (FRSM). Importantly, FRSMs lack the advanced technology incorporated in respirators and provided inadequate protection against infectious aerosols.
- 2.6 On 28 March 2020, a Central Alerting System (CAS) Alert was issued, co-signed by the NHS England Medical Director, PHE Medical Director and President of the Academy of Medical Royal Colleges. This was intended to reassure healthcare workers that the reduced level of PPE was safe. Their alert message included the definitive statement: ‘COVID-19 is not airborne, it is droplet carried.’
- 2.7 It is CATA’s contention that this statement was untrue, without foundation and had immense consequences which imperilled healthcare workers across the UK, their patients and, in consequence, many other people.
- 2.8 CATA invites the Inquiry to investigate whether, from the onset of the pandemic to the end of the ‘relevant period’ there was ever any time where it was reasonable to assume that there was no risk to life or health arising from airborne transmission. Furthermore, CATA

invites the Inquiry to determine whether the lack of RPE in March 2020 prompted Government officials to misrepresent the mode of SARS-CoV-2 transmission in order to downgrade worker protection.

2.9 During the pandemic, it appears that COSHH was not applied in UK healthcare settings. Instead, IPC Guidance was the default guidance. CATA hopes that the Inquiry will investigate the legal basis for this, given the reasonably foreseeable risk of workers being exposed to airborne pathogens harmful to health. It appears that UK healthcare had neither planned for, nor was prepared to face the challenge of a pandemic disease transmitted by airborne routes. Even as the pandemic progressed and the weight of observational and scientific evidence of the role of airborne transmission became more and more undeniable, the IPC guidance continued to minimise its significance, putting obstacles in place which prevented workers accessing protection against infection. The IPC guidance acted in practice to override basic employment rights afforded to all other workers. Fundamental protections provided to other workers, such as the RIDDOR process and the application of COSHH were effectively deactivated. IPC Guidance continues to this day, with adherence to some largely discredited scientific hypotheses, including those relating to “Aerosol Generating Procedures”, which is used as a threshold for the rationing of access to respiratory protection.

2.10 CATA contends that denial of the airborne route is directly linked to deaths arising from infection of service-users in health and social care settings (“nosocomial infections”) and by those who were trying to care for them. Inadequate protection of healthcare workers resulted in their deaths, staff shortages through illness and a legacy of mental and physical health issues which continues to undermine the UK’s ability to look after its healthcare workforce. CATA considers the Inquiry must investigate why healthcare workers were subjected to inconsistent and often unacceptably low levels of protection. CATA seeks for the Inquiry to determine whether the decisions and policies that contradicted the precautionary principle and created lasting damage to lives and our healthcare infrastructure were scientifically and legally justified.

3. THE INQUIRY’S RULING ON THE SCOPE OF “HEALTHCARE”

- 3.1 The Inquiry must examine healthcare provision as a whole in order to understand the true experience of healthcare during the pandemic. Ahead of the last Preliminary Hearing of 27 September 2023, a number of Core Participants submitted that Modules 3 and Module 6 should run “*in tandem*” since there is no clear line of demarcation between what is considered “healthcare” and “social care”. The Chair’s ruling dated 9 October 2023, rejected those submissions. CATA is concerned that having a rigid definition of healthcare in Module 3 will have the consequence of causing healthcare administered within community settings to not be properly investigated, or, indeed, to not be investigated at all. While labels of “healthcare” and “social care” are useful taxonomies, they can disguise the fact that these systems are highly intertwined and interdependent once the Inquiry moves out of the acute hospital setting and into the community – as was the lived experience of CATA members during the pandemic.
- 3.2 CATA is also concerned that limiting the scope of “healthcare” in Module 3 will restrict the Inquiry’s ability to assess the experience of healthcare delivery in contrasting settings. For example, there were fundamental differences in the management of the risks of airborne transmission across employers, work environments and countries in which healthcare workers provide care across the UK – and conflicting advice was given to healthcare workers between healthcare settings. Only by examining these in contrast, can the Inquiry properly determine whether it was policy, politics, pragmatism, or science, which dictated the experience of healthcare during the pandemic.
- 3.3 The contrasts are stark: ambulance workers protected only by surgical masks handed over infected patients to A&E staff in full respiratory protective equipment; a healthcare professional performing the same procedure in one hospital or healthcare setting was entitled to different levels of protection depending on postcode, contractual status or just which building they were delivering the same service. Once the 4-nations IPC guidance was withdrawn and the nations reverted to their own national IPC manuals, the mode of transmission changed, for regulatory purposes, when the virus went over the Scottish or Welsh borders. CATA in its previous incarnations brought together the whole range of professional experiences to try and inform decision-making in a consistent way.
- 3.4 It is CATA’s firm view that the Inquiry will only be able to discharge its investigative duties by interrogating the impact of Covid-19 on community healthcare during the course of

Module 3. CATA seeks the Inquiry's confirmation that this matter will be considered within this module.

4. IPC EXPERT REPORTS

4.1 CATA are grateful to CTI for identifying the issue which has developed in relation to the five proposed IPC experts and their joint report, given its importance to this module and future modules. CATA's submission is that the Inquiry needs additional experts if it is properly to assess the adequacy of the IPC Guidance and Protocols. Professor Grundmann is an expert on population-level epidemiology and predicting Covid-19 related demand. Doubtless, he will provide invaluable contextual evidence. CATA considers, in healthcare settings, it is vital that the Inquiry has access to expertise on:

- a) modes of viral transmission in relation to both microbiology and the physics of airborne transmission. The latter, but not the former, may be within the expertise of Professor Beggs. A microbiologist with expertise in modes of transmission, including substantial knowledge of the airborne/droplet paradigm would be essential to meet the criteria of expertise in this area. This expertise is crucial because modes of transmission always influence and dictate the nature of IPC protocol.
- b) control mechanisms appropriate to the prevention of infection by biological hazards, including the use of methods across the hierarchy of control, but especially the types and effectiveness of personal protective equipment (PPE) or RPE. At present, none of the experts are equipped to comment on RPE, although Professor Beggs should be able to comment on engineering controls, one of the levels of the hierarchy. An expert in occupational protection from respiratory risk meeting the HSE's criteria for competence, and health and safety science more generally, would be required to provide expert advice in this area. This expertise links to that outlined in paragraph 4.1(a), but is distinct in that evidence will be produced in relation to the implications for effective control mechanisms arising out of the science of transmission.
- c) the management and administration of control measures for effective protection, including the management requirements for RPE programmes (including reusable

RPE), but also underpinning management processes, such as cohorting of workers, social distancing and space utilisation, procurement and distribution of resources in health contexts and effective safety management practices. An expert in the management of health risks in occupational and health settings would be required to provide such expertise. The expertise overlaps with that outlined in paragraph 4.1(b), but is distinct in its focus on operational health and safety management.

- 4.2 Expert evidence in this area is particularly important for the Inquiry, not only for its understanding of past choices and decision-making, but also to frame any recommendations for the future. Lack of access to such expertise was a significant factor that led to the vulnerability of healthcare to an airborne risk and its lack of appreciation of the significance of airborne transmission. At the outset of the pandemic, HSE (the regulator for RPE) had no RPE experts in its field team. Healthcare employers had only three competent specialists in the management of the prevention of respiratory risks to workers in the entirety of the workforce. There was no requirement for IPC staff at any level to have training on the use of FFP3s, let alone fit testing or managing an RPE programme. The healthcare system faced and continues to face the risk of a respiratory pandemic without the institutional knowledge to understand the problem. The Inquiry needs to be sufficiently informed about the problem of control of airborne risk in order to understand what the healthcare system itself was not equipped to comprehend.
- 4.3 In addition, CATA considers it is important that the Inquiry obtains expert evidence on what the correct approach to IPC guidance should have been during the pandemic, so that there is clarity ahead of the next airborne pandemic. CATA contends that there were existing procedures in place for dealing with similar viruses, which were not followed. There was substantial learning which could and should have been drawn upon at the outset of the pandemic in the formulation of appropriate IPC guidance. CATA hopes that the Inquiry will investigate why this was the case.
- 4.4 We wish to remind the Inquiry that CATA has previously provided a list of suggested experts to assist the Inquiry. We will do so again in order to help CTI and the Inquiry.

5. **'SPOTLIGHTING' GOOD PRACTICE**

- 5.1 CATA notes and welcomes the efforts of the Inquiry to ensure it captures a realistic, “*on the ground*” perspective across the four nations of how different hospitals responded to the pressures of the pandemic. It particularly welcomes the approach of the Inquiry in ensuring that the Rule 9 evidence from those selected as Spotlight hospitals comes from an individual who can speak to events on the frontline rather than a corporate statement.
- 5.2 CATA wishes to build on that work by highlighting examples outside the selected Spotlight hospitals who developed and implemented good practice rapidly in the pandemic and who may have valuable learning of their own to contribute to Module 3. CATA considers that important lessons can be learned from good practice (being contrasted with bad). In identifying case studies of effective control of COVID-19, CATA’s members consistently observed the following factors:
- a) Firstly, employers or organisations which took the risk of airborne transmission seriously from the start, taking a precautionary approach. Outbreaks in UK health facilities which applied COSHH over and above IPC guidance, such as healthcare facilities on oil rigs and major infrastructure sites saw very low levels of outbreak or transmission, despite populations working and living in confinement. The West Midlands Ambulance Service (“WMAS”) was the first ambulance trust to implement powered respirator hoods for their staff in early 2020 and secured sufficient supplies to ensure that staff were given personal issue hoods.
 - b) Secondly, healthcare settings which sought to implement airborne control measures, despite the guidance saw lower levels of staff infection. University Hospital Southampton responded to the lack of adequate FFP3 masks, as well as well-recognised problems around their fit, discomfort and appropriateness for healthcare workers from different religious and ethnic backgrounds, by rapidly developing and manufacturing a powered personal respirator for healthcare professionals (“PeRSo”). This circumvented the restrictions on the use of powered respirators available on the market put in place by HSE.
 - c) Finally, where properly managed, the hierarchy of controls was able to contribute to better outcomes without sole reliance on RPE. However, as in the case of Addenbrookes Hospital, this was because of the use of expertise and systematic thinking in the use of engineered and administrative systems, designed around the

management of airborne risk and in support of precautionary RPE against airborne transmission.

- 5.3 These examples offer the Inquiry an opportunity to learn *why* these organisations were able to offer rapid, effective responses to the pandemic. This analysis could help to create more resilient systems in the future, as well as identifying any obstacles to their otherwise successful projects which may hinder a response to similar challenges in the future.

6. **DISCLOSURE**

- 6.1. Dealing with the consequences of the disclosure, including analysing relevant documents, taking instructions and then being able to assist the Inquiry by suggesting relevant questions, or by making related submissions, are all time-consuming tasks, which are more efficiently done where there has been proper time to understand the material.
- 6.2. Since the Inquiry has a tight timetable for hearing one module after another, the benefits of providing as much disclosure as possible now, well before Module 3 starts, are obvious, and are likely to extend well beyond proper presentation and preparation of Module 3 and into other modules as well. This is not just an issue of the processes followed by the Inquiry leading to better and more effective conclusions, but also an issue of appearances. The Inquiry is more likely to maintain the trust and confidence of the Core Participants and the public if it can demonstrate that material is being efficiently provided and people having a fair opportunity to consider it than if there is a perception that it is not achieving this.
- 6.3. CATA is keen that the Inquiry ensures that it provides disclosure in a proportionate and timely manner so that they can effectively participate in Module 3.

7. **CONCLUSION**

- 7.1. CATA hopes that these submissions crystallise the importance of the Inquiry forming a view on the following key questions:
- whether there was a basis for the initial and continuing denial of the airborne route of transmission of COVID-19 in healthcare settings;

- whether there was justification for inconsistency in the application of protections for healthcare workers between healthcare and other sectors and within and across all healthcare settings;
- whether the application of IPC guidance was informed by the appropriate scientific considerations and the protections of human rights, employment law and health and safety regulations;
- the extent to which healthcare made use of effective practice and professional knowledge and expertise from within its own ranks and from outside UK healthcare to ensure the best protection of healthcare workers.

7.2. Most importantly, CATA is keen for the Inquiry to examine whether, faced with a new pandemic risk with an airborne risk - and indeed for other transmission modes - UK healthcare would be better or worse prepared than it was in 2020. CATA contends that in almost all respects, the answer would be “no” and the country needs to understand why at present, this would be so.

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