11 February 2022

**By email:** Chris.Whitty@dhsc.gov.uk

Sir Professor Chris Whitty
Chief Medical Officer for England

Dear Sir Professor Chris Whitty,

**Inconsistencies between public messaging on airborne transmission of Covid-19 and IPC guidance across the UK**

We write to you as professional organisations representing a large proportion of health care workers (HCWs).

We wish to draw your attention to the inconsistencies currently prevailing regarding guidance on the RPE required to protect HCWs from airborne transmission as described in public health messaging.

**Clarifying the Transmission Route for SARS-CoV-2**

There is now significant scientific consensus, as you know, around the route of transmission, with most official bodies now stating that SARS-CoV-2 is transmitted by the airborne route as well as by droplets and fomites. These include WHO, CDC, ECDC, SAGE and the Cabinet Office UKHSA guidance 18th January 2022 which states*:*

*"COVID-19 is spread by airborne transmission, close contact via droplets, and via surfaces. Airborne transmission is a very significant way that the virus circulates. It is possible to be infected by someone you don't have close contact with, especially if you're in a crowded and/or poorly ventilated space.*

*Close contact with an infected person is also a significant way COVID-19 is spread. When someone with COVID-19 breathes, speaks, coughs or sneezes, they release particles containing the virus that causes COVID-19. The particles can come into contact with the eyes, nose or mouth or can be breathed in by another person."*

In fact, the knowledge that coronaviruses could be transmitted by the airborne route was known long before the pandemic as indicated in a paper by your recent colleague, the Deputy CMO Prof Sir Jonathan Van Tam, co-authored with Dr Lisa Ritchie (NHS E/NHSI) [Guidance on use of respiratory and facial protection equipment; Coia et al JHI 85(2013) 170-182]

Professor Andrew Curran, the Health and Safety Executive's Chief Scientific Advisor and co-Chair of the Environmental Modelling Group stated categorically in evidence to MPs at the Science and Technology Select Committee (26 Oct 2021 Q2500/01) that "*the airborne route is … the most critical*". This was confirmed by another expert at the same meeting, Professor Mondelli stating that "*Airborne transmission is the most important way of transmission of COVID-19/SARS-CoV-2*".
Even The First Minister of Scotland advocates ventilatory measures commensurate with reducing airborne transmission.

> "*All of these basic mitigation measures are really important at this stage but some of them are also valuable long-term investments," said First Minister Nicola Sturgeon. "For example, better ventilation won't just reduce the spread of Covid – it will also help reduce the spread of other airborne viruses, now and in the future."*
> https://modbs.co.uk/news/fullstory.php/aid/19769/Whitty_urges_businesses_to_invest_in_ventilation__.html

However, the latest iteration of UK IPC (Infection Prevention & Control) guidance 17th January 2022 no longer gives an any indication of the transmission route. This makes Infection Prevention and Control decisions and risk assessments less easy to carry out in an appropriate fashion. Most obviously, this is also causing confusion and differences of interpretation across the 4 nations, with the Scottish government and the UK Ambulance Service IPC Group insisting on droplet transmission as the main form of transmission and the consequent mitigations including use of fluid resistant surgical masks (FRSMs) except for aerosol generating procedures (AGPs).

Whilst we welcome the removal of the term "Respiratory Protective Equipment (RPE) to be used only when the infection is ***wholly*** transmitted by the airborne route" it would be helpful if all UK guidance, including that emanating from the IPC cell could be consistent with that of the Cabinet Office and international guidance.

In fact, the latest IPC guidance states:

*"A respirator must be worn by staff when:*

- *Caring for patients with a suspected or confirmed infection spread by the airborne route*
- *When performing AGPs on a patient with a suspected or confirmed infection spread by the droplet or airborne route"*

In the absence of clarity over how Covid-19 is transmitted in the IPC guidance, the above statements are difficult to apply in practice but many Trusts have already adopted RPE for close contact care and have demonstrated reduced staff infection (e.g. Cambridge where a significantly elevated risk to HCWs on "red wards" was almost eliminated by replacing FRSMs with FFP3 masks, and in Southampton where use of Powered Air Purifying Respirators (PAPR) was implemented early in the pandemic with one of the lowest HCW infection rates in the UK).

**Clarification of the appropriate use of RPE when in close contact with COVID-19 infected patients**

On 14 October 2021 the UK-HSA Respiratory Evidence Panel produced a statement on the role of face coverings in mitigating the transmission of SARS-CoV-2 virus stating unequivocally "*close contact transmission (< 2 metres) is expected to be the main transmission mode, whether it is through direct contact with ballistic particles or through inhalation of particles suspended in the air*."

If the airborne route is important, as clearly messaged by Cabinet Office guidance 18th January 2022 and in public education videos, it should also apply even more so to HCWs in close contact with patients suspected of or confirmed to have a respiratory virus such as SARS-CoV-2. One does not have to be an aerosol scientist or infection and prevention control expert to understand that the risk associated with airborne transmission is greatest within 1-2m of the source of the aerosols generated by infected patients as pointed out by SAGE in April 2021 and UKHSA Respiratory Evidence Panel. At this distance, other controls, such as ventilation, are unlikely to be effective.

Ventilation is an effective and important control over the airborne transmission route for COVID-19. When working in prolonged exposure to COVID-19 in poorly ventilated spaces, then alternative controls need to be in place to protect healthcare workers. Taking a scientific and risk-based approach to determining when ventilation will not be effective and when other measures, such as RPE may be necessary, is recognised in guidance by our own HSE and illustrated by scientific models such as MIT's COVID-19 Indoor Safety Guideline (indoor-covid-safety.herokuapp.com)

We understand that UK IPC guidance has been largely based upon WHO guidance with which it has not kept up to date. WHO guidance has changed dramatically and now states clearly that Covid-19 is airborne and that FFP3 should be worn on entering an infected patient's room. This is also advocated by CDC, ECDC and the Republic of China.

This would support our understanding, and that of our members as indicating that where the probability of exposure to risk of COVID-19 infection exists, RPE in the form of FFP3 or equivalent is required. This is particularly important when considering close contact care irrespective of procedure (rendering the AGP list redundant and obsolete).

Arguments about the practicality of deploying RPE, its availability, or the capability of health service employers to deploy RPE were put forward earlier in the pandemic. The experience of most healthcare settings since the change on the 18th January 2022 suggests that there is no longer an arguable basis for not providing protection to workers. RPE is not merely a tool in the infection

control hierarchy, but also an entitlement for all workers in every other sector of Society when being exposed to harmful substances by reason of their occupation.

Current IPC guidance gives no indication of the increased risk at close quarters except in the context of AGPs. It is this incongruency which lies at the centre of the confusion caused by lack of clarity in IPC guidance.

**Managing healthcare work exposure in poorly ventilated education (and other) settings**

Further confusion arises from guidance in the Education sector- **use of face coverings in education settings (PDF)** which accords with Cabinet Office guidance. In this respect, the IPC guidance is again out of alignment. In this guidance the Department for Education (England) highlights that the Scientific Advisory Group for Emergencies (SAGE) has advised that Omicron might show more airborne transmission. As a result, healthcare workers who work with children in schools are confused and have asked us to clarify the inconsistencies with IPC guidance. We are unclear whether Department of Education advice for education settings applies to visiting healthcare workers.

You yourself have highlighted the importance of ventilation to the business sector:

> *"We have realised the extraordinary importance of improving the ventilation of workplaces, not just for Covid but also for many other respiratory infections," he said.*
> *"If we invest in that now, we'll both help the aftermath of Covid, but also cut down on things like flu outbreaks."*
> https://modbs.co.uk/news/fullstory.php/aid/19769/Whitty_urges_businesses_to_invest_in_ventilation__.html

**Reinforcing the limitations of FRSM on protection from infection for healthcare workers.**

The guidance to use risk assessment to determine the level of PPE/RPE required is predicated on a clear understanding of the potential routes of transmission, including the airborne route. Existing scientific data and research demonstrate the limitations of using FRSMs to effectively control the airborne route of infection for wearers. There is no dispute that they may limit the level to which wearers can infect others, but they do not constitute respiratory protective equipment for the effective control of airborne viruses. FRSMs do not protect against aerosols, nor were they designed to do so and HSE has conducted studies proving this. RR619 Evaluating the protection afforded by surgical masks (hse.gov.uk). This should be clarified and FRSMs should be restored to their function as an important source control role in IPC and not mis-identified as RPE in the fight against COVID-19.

**Conclusion**

We have previously communicated with you and your fellow CMOs (email date 12th March 2021) on these matters and you kindly organised a stakeholder meeting which took place in June 2021. Similarly, we provided evidence to the Parliamentary Committee in October 2021. We also provided evidence in response to the IPC Cell consultation in October 2021 derived from multiple stakeholders representing a broad range of HCWs. It is positive that the Cabinet Office guidance now supports the consistent views that we have propounded, based on science and an understanding of health and safety law.

We therefore call on you once again to use your good offices to ensure clarification of remaining inconsistencies and to ensure that ALL guidance on Covid-19 in all settings across the 4 nations is brought in line with this to protect all healthcare workers and, by extension all the peoples of the United Kingdom.

Yours sincerely,

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Chair of the Covid Airborne Protection Alliance (*CAPA)

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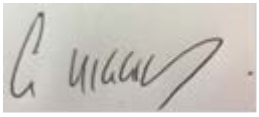

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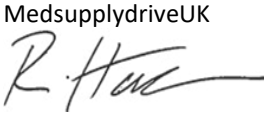

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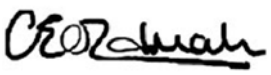

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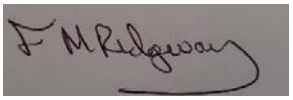

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*CAPA

- ARTP - Association for Respiratory Technology & Physiology
- BAPEN – British Association for Parenteral and Enteral Nutrition
- BIASP – British and Irish Association of Stroke Physicians
- BDA – British Dietetic Association
- BOHS - British Occupational Health Society
- BSG - British Society of Gastroenterology
- College of Paramedics
- CSP – Chartered Society of Physiotherapy
- FreshAir NHS
- GMB Union
- HCSA - Hospital Consultants and Specialists Association

- MSDUK Med Supply Drive UK
- NNNG - National Nurses Nutrition Group
- QNI - Queen's Nursing Institute
- RCSLT – Royal College of Speech and Language Therapists
- Unite the Union
- Doctors Association UK