

Open letter: respirators, source control, and the right of staff and patients to protect themselves

To:

The Infection Prevention and Control team, NHS England
ARHAI Scotland, NHS National Services Scotland
Director of NHS Scotland Assure, NHS National Services Scotland
The Infection Prevention and Control team, Public Health Wales
The Infection Prevention and Control team, Public Health Agency (Northern Ireland)
The Chief Nursing Officers of England, Scotland, Wales and Northern Ireland
The Chief Medical Officers of the four nations

Cc:

The Prime Minister
The First Minister of Scotland
The First Minister of Wales
The First Minister and deputy First Minister of Northern Ireland

22nd October 2026

Dear IPC Committee Members,

We are a group comprised of Core Participants in the UK COVID-19 Inquiry, clinicians, and scientists. We write together concerning a near-identical sentence that appears in the national infection prevention and control manuals across the UK.

Specifically, the manuals state:

"Respiratory protective equipment (RPE) must never be worn by an infectious patient(s) due to the nature of the respirator filtration of incoming air not expelled air." [1]

In reality, this should only apply to valved RPE, which are not favoured by the patient groups we represent.

However, symptomatic and/or infectious (e.g. positive COVID-19 lateral flow test) patients arriving in healthcare settings wearing close-fitting, non-valved respirators are required, under this guidance, to remove them, and replace them with a non-RPE fluid-resistant surgical mask instead. All available evidence points to the former being vastly superior to the latter in this regard.

We raise this important issue following the recent update to Scottish guidance. Moreover as winter approaches the prevalence of seasonal endemic respiratory infections, including influenza,

is already increasing alongside a resurgent wave of SARS-CoV-2. Thus, this guidance creates disproportionate clinical risk and negates an opportunity for source control.

However, of greatest concern are the Clinically Vulnerable patients and staff we represent, who are more likely to both become infected by respiratory pathogens, and then experience more severe outcomes as a result. Thus, these groups are most in need of protection, both from the use of their own respirator, and from others in the community practising effective source control through such precautions and so minimising potential exposure.

The provision

Chapter 2 of the National Infection Prevention and Control Manual for England states that respiratory protective equipment *"must never be worn by an infectious patient(s) due to the nature of the respirator filtration of incoming air not expelled air."* [1]

Section 2.4.5 of the National Infection Prevention and Control Manual for Scotland states: *"RPE should never be worn by an infectious person as the respirator filters incoming air and not the air being expelled by the wearer."* [2] The same proposition appears twice in the supporting Transmission Based Precautions literature review on Respiratory Protective Equipment [3].

The same prohibition appears in the Public Health Wales manual [4]. In Northern Ireland's manual it is limited to powered respirator hoods, the one device for which the rationale is correct [5].

Note added 18th October 2026.

On 14th October 2026, after this letter was finalised, ARHAI Scotland amended section 2.4.5. It now reads: *"Valved FFP3 respirators and powered respirator hoods should never be worn by an infectious person as the respirator is designed to filter incoming air and not the air being expelled by the wearer."* The Public Health Wales manual reproduces the Scottish chapter, so it carries the same amendment.

We welcome this. It is close to what we ask for at point 1 below. It does not settle the matter.

Three things are unchanged. Appendices 11 and 15, both dated 3rd August 2026, still set out only what staff should wear. Chapter 1, section 1.3 still says that patients with respiratory symptoms should be encouraged to wear a surgical face mask, and nowhere does the manual tell a patient that they may wear their own unvalved respirator instead. No evidence or rationale has been published for the amendment, and the literature review behind it remains at version 5.0, searched only to May 2022.

The provision described in this letter remains in place in England and Northern Ireland.

The same asymmetry runs through each national manual, and it is easiest to show where it is written into a single section, as it is in the Scottish guidance. Immediately above the prohibition, section 2.4.5 states that staff may choose to wear RPE where a fluid-resistant surgical mask is indicated, when caring for a patient with a suspected or confirmed R1 respiratory infection, based on personal choice, or on advice from occupational health, a GP, or another personal medical practitioner. The next paragraph states that *“RPE should never be worn by an infectious person as the respirator filters incoming air and not the air being expelled by the wearer.”*

A member of staff may therefore elect to wear a respirator in the room. The patient in the same room, if potentially infectious with a *“suspected or confirmed transmissible respiratory infection”*, may not.

England’s manual permits the opposite for visitors. An FFP3 respirator *“may be considered for use by visitors if there has been no previous exposure to the infected person or infectious agent; but must never be worn by an infectious patient(s)”* [1]. A visitor and an infectious patient are both members of the public wearing the same device, with the same absence of fit testing or training. The only difference between them is that one is considered to be a source — so the prohibition relies entirely on the premise that a respirator does nothing to contain what the wearer breathes out.

1. The physical premise is wrong for unvalved respirators

In an unvalved filtering facepiece respirator, there is no exhalation valve bypassing the filter media: exhaled air passes principally through the filter, subject to leakage around the face seal. The premise stated in the manuals — that a respirator filters incoming but not expelled air — may describe a respirator fitted with an exhalation valve, but it does not describe an unvalved respirator, which is the type most frequently sold to the public and the type some patients now bring with them.

Source control is cumulative. Any reduction in the infectious material released into a shared space lowers the risk of transmission, whether or not that reduction is complete. The point applies even where a mask only captures larger droplets rather than fine aerosol. Exhaled particles do not stay the size at which they leave the mouth: they evaporate as they travel, becoming smaller and remaining airborne for longer. Material held in the filter never makes that transition. Capturing larger particles at the point of emission therefore removes a source of the smaller ones, which is also why a categorical distinction between droplets and aerosols does not describe what happens in a room.

This distinction is already understood within the NHS. In August 2021 NHS England issued a National Patient Safety Alert restricting the use of valved FFP3 respirators and powered air purifying respirators during surgical and invasive procedures, on the express basis that air exiting a PAPR hood is not filtered [6]. The principal difference between valved and unvalved respirators is therefore already recognised, and acted upon, where staff equipment is concerned. UKHSA’s own guidance for adult social care draws the same distinction for exactly that reason, directing that care staff and visitors should not wear masks with an exhalation valve or vent [7]. Why does it not apply where patients are concerned?

2. The supporting evidence base does not appear to exist

In the Scottish RPE literature review, this statement is supported by just a single citation: the Health and Safety Executive's Respiratory protective equipment at work: a practical guide [8]. It is an occupational hygiene document concerned with protecting workers from workplace hazards, not source control in patients. The wider framework it draws on, the HSE's Approved List of Biological Agents, explicitly takes no account of a person's pre-existing health conditions, medication, immunosuppression or pregnancy when allocating a hazard group, on the basis that those are matters for a general risk assessment [9]. That is a reasonable design for an occupational containment framework, but a categorical rule for patients inherits the exclusion silently, with no risk assessment.

Three further points emerge from material published by the guidance body itself. The definitions literature review's evidence was searched only up to May 2022, and a planned second search was not carried out for resource reasons [10]; the RPE review itself states there is very little evidence on RPE use by visitors, so no evidence-based recommendation is possible [3]; and the same review concludes that transmission categories do not capture the real continuum of particle sizes — which only sharpens the question of why an available protective measure should be categorically prohibited.

ARHAI Scotland's implementation materials show how this is being explained to NHS boards. A crib sheet of scientific FAQs issued to infection prevention teams in June 2026 states that RPE *“is mechanistically superior to surgical masks in terms of their design for particle filtration and yet this superiority is not clearly demonstrated in studies that assess effectiveness”*, and characterises the experimental evidence as manikin heads and non-infectious particles with mixed findings [11]. That omits the Health and Safety Executive's own work. In RR619, HSE tested surgical masks and FFP respirators on a human volunteer against an inert aerosol challenge: surgical masks gave a mean reduction factor of about 2, against 100 or higher for FFP respirators. In a separate test, surgical masks alone were challenged with an aerosol containing live influenza virus on a breathing dummy head, giving a mean reduction factor of 6, with infectious virus detected in the air behind every mask tested. HSE concluded that surgical masks *“should not be used in situations where close exposure to infectious aerosols is likely”* [12]. RR619 measured protection of the wearer rather than source control, but it is the regulator's own experimental work on human subjects, and it does not support treating the two devices as equivalent.

3. What the published evidence shows

Measured directly in infected people. A controlled human experimental study published in *eBioMedicine* in 2024 enrolled 44 volunteers with community-acquired COVID-19, each providing paired masked and unmasked exhaled breath samples and serving as their own control [13]. All masks and respirators significantly reduced exhaled viral load, without fit testing or training. A duckbill N95 reduced exhaled viral load by 98% (95% CI 97–99%), significantly outperforming a KN95 ($p < 0.001$) as well as surgical and cloth masks. The surgical mask reduced exhaled viral load by 74% (95% CI 65–81%) and the KN95 by 71% (95% CI 59–79%). Surgical masks reduce transmission, but they don't stop it completely. The difference between 74 and 98% is the protection lost when a patient's own respirator is removed. The authors concluded that N95

respirators could be the standard of care in healthcare settings when respiratory viral infections are prevalent.

Fit testing does not account for the difference. In the controlled human study, the 98% reduction was achieved without fit testing or training [13]. Fitted filtration measured on wearers who were not fit tested, and who simply adjusted the device themselves, was 97 to 98% for N95 respirators, against 52 to 77% for medical masks [14]. Fit testing confirms a minimum level of protection for workers exposed to hazards. It is part of an employer's duty to protect staff, not a requirement for a mask to work.

This challenges the very argument used to justify the ban. Whatever limitations apply to extrapolating from COVID-19 to other infections, or from one N95 model to all respirators, the study contradicts the claim that an unvalved respirator filters the air you breathe in but not the air you breathe out.

Direct comparison of source-control devices in a hospital context. A study published in the *Journal of Hospital Infection* in 2026 compared five devices — a surgical mask, a non-valved N95 filtering facepiece respirator, a valved N95, an elastomeric half-mask respirator, and an elastomeric respirator with a surgical mask overlay — across three different face seal conditions and three flow rates [15]. The non-valved N95 reduced total outward leakage to approximately 5 to 9%, eliminated horizontal exhalation jets, and produced near-zero near-field emission and the lowest far-field persistence of any device tested, including the surgical mask that an infectious patient is required to wear instead.

On the measured evidence the unvalved respirator outperforms the surgical mask, and significantly so, in the controlled human study of exhaled viral load, and on every measure in the hospital comparison.

4. The consequence

A patient who is symptomatic and who arrives wearing their own FFP2 or FFP3 will, under these provisions, be asked to remove it and, at best, to replace it with a surgical mask. It removes a layer of respiratory protection from the patient and may also reduce source control for those around them, all supposedly in the name of infection prevention.

The consequences are particularly important for Clinically Vulnerable people. Clinically Vulnerable Families provided evidence to the UK COVID-19 Inquiry showing that, when routine masking guidance was relaxed in 2022, higher-risk patients delayed or cancelled NHS appointments in substantial numbers, and that attendance did not fully recover [16]. For people living with health conditions, healthcare is not optional, and delaying or cancelling it can have serious consequences.

A policy that requires a Clinically Vulnerable person to remove a respirator they have chosen to wear for their own protection therefore creates a barrier to accessing care [23]. Infection-control guidance should be specific, evidence-based, and not make vulnerable people choose between protecting themselves and entering healthcare settings.

This is also a staff safety question. A respirator worn by an infectious patient protects the staff and other patients in the room; replacing it with a surgical mask exposes them to more infectious material for longer, and many healthcare workers are themselves Clinically Vulnerable.

5. The Inquiry has already examined this

The Inquiry's own infection-control experts gave oral evidence on this question on 19th September 2024 [17].

Dr Ben Warne told the Inquiry that FFP2 and FFP3 masks *“provide more protection in that regard, predominantly from the wearer coughing”*. Asked whether a member of the public who arrived wearing one should be allowed to keep it, he said he was *“not aware that we would have asked a visitor to change from FFP2/3, should they be wearing one, to an FRSM”*, and *“not aware of any hospital which would have taken that position”*. Counsel then put to him the evidence of Clinically Vulnerable Families' members that *“that's exactly what happened, that they came into hospital and were told, ‘No, no, you've got to wear the sort of hospital issued surgical mask, rather than the mask that you've come in with’”*.

Dr Gee Yen Shin, asked whether a Clinically Vulnerable person visiting a healthcare setting should be able to wear a better-quality mask, replied: *“yes, it's reasonable that they continue to wear that mask”*.

The provision in these manuals requires what the Inquiry's own expert did not believe any hospital was doing.

On the underlying physics, the Inquiry's expert Professor Clive Beggs gave evidence on 11th September 2024 [18] that the five-micron threshold for distinguishing a droplet from an aerosol *“has no basis in physics and is arbitrary”*, because even *“respiratory particles as large as 20µm in diameter are so light that they can remain suspended in air for over two minutes”*. The Module 3 report records that evidence at paragraph 1.53 [19]. It concluded that the clinical community's reliance on these assumptions and the associated emphasis on cut-off points *“was flawed”*, and that it was *“a clear failure by the public health bodies of the four nations and the UK IPC Cell not to account for the fact that the assumptions made may have been wrong”* (paragraph 1.52). It also records that those cut-off points *“were repeated in various iterations of the UK's Covid-19 infection prevention and control guidance”* (paragraph 1.50).

Recommendation 1 of the Module 3 report directs that the Department of Health and Social Care, NHS National Services Scotland, Public Health Wales and the Public Health Agency (Northern Ireland) *“should review the national infection prevention and control manuals and any future guidance to ensure that the approach to identifying risk of transmission is not confined solely to specific procedures”* [19]. In its response to Module 3, published on 14 September 2026, the UK government accepted that infection prevention and control guidance must take a precautionary approach reflecting all plausible routes of transmission until the evidence rules them out, and that the rationale for each precaution should be published [20]. We welcome that commitment. The provision considered in this letter should now be reviewed against that standard: its scientific rationale should be stated, the evidence supporting it should be identified, and the evidence on unvalved and valved respirators should be considered separately.

What we are asking for

1. That each national manual amend the prohibition so that it applies to valved respiratory protective equipment and powered respirator hoods, where exhaled air bypasses the filter, and not to an unvalved respirator. We are asking for the scope of the sentence to be corrected, not for the sentence to be removed. The corrected sentence should also make clear that where a patient or visitor is infectious, an unvalved respirator is the better choice.
2. That the manuals state explicitly that patients and visitors may wear their own well-fitting respirator (FFP2 / FFP3), including when known or suspected to be infectious, unless there is a specific clinical reason for removal in the individual case — such as the need for oxygen therapy or assisted ventilation, facial injury, or a device that would prevent communication. We are not arguing against clinical judgement, only against a categorical rule against all respirators; UKHSA's own adult social care guidance already gives individual preference this weight, via a local risk assessment [7].
3. That the evidence behind any update be published, graded and dated, with source control by respirators treated as a research question in its own right and a literature search extending beyond May 2022.
4. That Clinically Vulnerable people be represented in the group revising this provision, and in the development of future respiratory infection guidance. ARHAI Scotland's April 2024 working group drew on infection prevention, clinical and operational expertise across NHS Scotland, but did not include anyone with lived experience of clinical vulnerability.
5. That all four UK nations coordinate guidance recommendations. The same sentence appears in more than one manual. It should not be corrected for one nation and remain for another.
6. That the guidance says plainly what each RPE device does, and that this be communicated to the public and healthcare workers.
7. Moreover, we request that the term "Face Covering" be removed from IPC guidance across the board. This is not a technical category. Instead, it is a colloquial grouping of cloth masks, fluid-resistant surgical masks and FFP2 / FFP3 respirators, despite, as set out above, their differing substantially in terms of both wearer protection and source control. The term should not be used in any infection prevention and control guidance.
8. Where guidance refers to a surgical mask it should be explicit. It should also state that a surgical mask is not respiratory protective equipment. The standard surgical masks are made to, BS EN 14683, states that it does not apply to masks intended for the personal protection of staff, and certifies filtration on flat material rather than on a wearer [21]. Respirators are made to BS EN 149, which tests leakage with the device on a person [22].
9. We ask all UK nations to publish accurate information to enable informed decision making for patients and visitors in healthcare settings. Many Clinically Vulnerable people do not know that respiratory protective equipment is available to them, or that they may use it to reduce their own risk. A Clinically Vulnerable person attending an appointment may make an informed choice in this regard, and that choice must be respected by staff.

ARHAI Scotland's revised Transmission Based Precautions guidance (Appendices 11 and 15, 3 August 2026) still requires the surgical mask and excludes RPE. This guidance is based upon a literature review republished the same date but still based upon evidence only up to May 2022. The Welsh manual carries the same provision, so the same point applies. We ask NHS England and the Public Health Agency in Northern Ireland to confirm, in their own reply, how current the evidence base behind their equivalent provision is.

We would welcome a meeting: on making the guidance clear, nuanced and evidence-based; on advising healthcare workers that RPE is best practice during periods of high respiratory disease prevalence; on ensuring consistent practice across the UK; and on ensuring that patients are able to wear non-valved RPE if they so choose.

Signatories

Organisations

Lara Wong, founder and CEO, Clinically Vulnerable Families
— Core Participant, UK COVID-19 Inquiry

Sarah Steven, Director, Clinically Vulnerable Families
— Core Participant, UK COVID-19 Inquiry

Dr Catherine Finnis, Medical lead, Clinically Vulnerable Families
— Core Participant, UK COVID-19 Inquiry

David Osborn, Former Member of Executive Team, Covid Airborne Transmission Alliance,
— Member Safer Healthcare and Biosafety Network
— Member British Occupational Hygiene Society
— Core Participant, UK COVID-19 Inquiry

Sam Smith-Higgins, Co-Lead, Covid Bereaved Families for Justice Cymru
— Core Participant, UK COVID-19 Inquiry

Covid-19 Bereaved Families for Justice UK
— Core Participant, UK COVID-19 Inquiry

Julia Jones, Co-founder, John's Campaign
— Core Participant, UK COVID-19 Inquiry

Lindsay Skipper, Director, Long COVID Physio
— Core Participant, UK COVID-19 Inquiry

Sarah Barley-McMullen, Chair, Long Covid SOS
— Core Participant, UK COVID-19 Inquiry

Nigel Rothband, Chair, Long Covid UK
— Core Participant, UK COVID-19 Inquiry

Dr Alan Wightman, Scottish Covid Bereaved
— Core Participant, UK COVID-19 Inquiry

Clinicians, experts and scientists, in a personal capacity

Professor Sheena Cruickshank, Professor of Public Engagement & Biomed Sci, Division of Immunology, Immunity to Infection and Respiratory Medicine

Professor Trisha Greenhalgh, Professor of Primary Care Health Sciences, University of Oxford and member of Independent SAGE.

Professor Stephen Griffin, Professor of Cancer Virology, University of Leeds, and Co-Chair, Independent SAGE

Professor Martin McKee, Professor of European Public Health, London School of Hygiene & Tropical Medicine and member Independent SAGE

Marie Monaghan, Chair, Hazards Campaign / Greater Manchester Hazards Centre

Professor Christina Pagel, Professor of Operational Research, UCL and member Independent SAGE

Dr Adam Squires, Aerosol Scientist and Senior Lecturer in Physical Chemistry, University of Bath

Dr Emma Weisblatt, Developmental Neuropsychiatrist, Bye-Fellow in Psychology, Girton College Cambridge.

Professor Kit Yates, Professor of Mathematical Biology, University of Bath and member of Independent SAGE

Institutional affiliations are given for identification only and do not imply endorsement by the institutions named.

References

1. NHS England. *National Infection Prevention and Control Manual for England*, Chapter 2: Transmission based precautions, at <https://www.england.nhs.uk/national-infection-prevention-and-control-manual-nipcm-for-england/chapter-2-transmission-based-precautions-tbps/>
2. ARHAI Scotland. *National Infection Prevention and Control Manual*, section 2.4.5: Respiratory Protective Equipment (RPE), at <https://www.nipcm.scot.nhs.uk/chapter-2-transmission-based-precautions-tbps/>
3. ARHAI Scotland. *Transmission Based Precautions literature review: Respiratory Protective Equipment (RPE)*, version 5.0, 3 August 2026, at <https://www.nipcm.scot.nhs.uk/web-resources-container/tbp-literature-review-respiratory-protective-equipment-rpe/>
4. Public Health Wales. *National Infection Prevention and Control Manual (NIPCM)*, Chapter 2 - Transmission Based Precautions (TBPs), at <https://publichealthwales.nhs.wales/services-and-teams/antibiotics-and-infections/nipcm/chapter-2-transmission-based-precautions-tbps/>
5. Public Health Agency (Northern Ireland). *Regional Infection Prevention and Control Manual*, Transmission Based Precautions section, at <https://www.niinfectioncontrolmanual.net/transmission-based-precautions/>
6. NHS England. *Infection risk when using FFP3 respirators with valves or powered air purifying respirators (PAPRs) during surgical and invasive procedures*. National Patient Safety Alert, August 2021, at <https://www.england.nhs.uk/publication/national-patient-safety-alert-infection-risk-when-using-ffp3-respirators-with-valves-or-powered-air-purifying-respirators-paprs-during-surgical-and-invasive-procedures/>
7. UK Health Security Agency and Department of Health and Social Care. *Infection prevention and control (IPC) in adult social care: acute respiratory infection (ARI)*. Published 31 January 2024, last updated 28 March 2024, at <https://www.gov.uk/government/publications/infection-prevention-and-control-in-adult-social-care-acute-respiratory-infection>
8. Health and Safety Executive. *Respiratory protective equipment at work: a practical guide (HSG53)*, at <https://www.hse.gov.uk/pubns/books/hsg53.htm>
9. Health and Safety Executive. *The Approved List of Biological Agents*, sixth edition, effective 24 March 2026 (MISC208). See paragraph 16 on susceptibility, and the scope of the list, at <https://www.hse.gov.uk/pubns/misc208.htm>
10. ARHAI Scotland. *Transmission Based Precautions definitions literature review, version 4.1*, 3 August 2026, at <https://www.nipcm.scot.nhs.uk/web-resources-container/tbp-literature-review-definitions-of-transmission-based-precautions/>
11. ARHAI Scotland. *TBP definitions guidance changes: scientific FAQs*, June 2026, in the Transmission Based Precautions implementation bundle, at <https://www.nipcm.scot.nhs.uk/transmission-based-precautions-tbps-implementation-bundle>
12. Gawn J, Clayton M, Makison C, Crook B. *Evaluating the protection afforded by surgical masks against influenza bioaerosols: gross protection of surgical masks compared to filtering facepiece respirators*. Prepared by the Health and Safety Laboratory for the Health and Safety Executive, 2008. Research Report RR619, at <https://www.hse.gov.uk/research/rrhtm/rr619.htm>
13. Lai J, Coleman KK, Tai SHS, German J, Hong F, Albert B, Esparza Y, Rastogi D, Srikakulapu A, Kalliomäki P, Schanz M, Smith AA, Sierra Maldonado I, Oertel M, Fadul N, Gold TL, McPhaul K, Ma T, Cowling BJ, Milton DK. Relative efficacy of masks and respirators as source control for viral aerosol shedding from people infected with SARS-CoV-2: a controlled human exhaled breath aerosol experimental study. *eBioMedicine* 2024; 104: 105157. doi:10.1016/j.ebiom.2024.105157. PMID 38821778.
14. Tomkins AA, Dulai G, Dulai R, Rassenberg S, Lawless D, Laengert S, Rudman RS, Hasan S, de Lannoy C-F, Drouillard KG, Clase CM. Measuring the fitted filtration efficiency of cloth masks, medical masks and respirators. *PLoS ONE* 2025; 20(4): e0301310. doi:10.1371/journal.pone.0301310.
15. Yang W, Myers WR, Ryan KJ, Zheng L, Zhang Y, Li X. Source control with masks and respirators in hospitals: exhalation aerosol shedding, jet suppression, and near-/far-field persistence. *Journal of Hospital Infection* 2026; 170: 236–245. doi:10.1016/j.jhin.2026.01.024. PMID 41698605.
16. UK Covid-19 Inquiry, Module 3. Witness statement of Dr Catherine Finnis on behalf of Clinically Vulnerable Families, INQ000409574, 31 January 2024, at <https://covid19.public-inquiry.uk/documents/inq000409574-witness-statement-of-dr-catherine-finnis-on-behalf-of-clinically-vulnerable-families-dated-31-01-2024>

17. UK Covid-19 Inquiry. Transcript of Module 3 public hearing, 19th September 2024, Day 8 (evidence of Dr Gee Yen Shin, Professor Dinah Gould and Dr Ben Warne), at <https://covid19.public-inquiry.uk/wp-content/uploads/2024/09/19181310/2024-09-19-Module-3-Day-8-Transcript.pdf>
18. UK Covid-19 Inquiry. Transcript of Module 3 public hearing, 11th September 2024 (evidence of Professor Clive Beggs), at <https://covid19.public-inquiry.uk/documents/transcript-of-module-3-public-hearing-on-11-september-2024/>
19. UK Covid-19 Inquiry. *Module 3: The impact of the Covid-19 pandemic on the healthcare systems of the United Kingdom*. HC 1730, Session 2024-26. Ordered by the House of Commons to be printed 19 March 2026, at <https://covid19.public-inquiry.uk/reports/module-3-full-report/>
20. UK Government. *UK government response to the Covid-19 Inquiry Module 3 report*, 14 September 2026, at <https://www.gov.uk/government/publications/uk-government-response-to-the-covid-19-inquiry-module-3-report>
21. British Standards Institution. BS EN 14683:2025, *Medical face masks — Requirements and test methods*, published 28 January 2025, superseding EN 14683:2019+AC:2019. Scope: the standard is not applicable to face masks intended exclusively for the personal protection of staff, and compliance with it does not demonstrate compliance with the requirements of the relevant PPE regulations.
22. British Standards Institution. BS EN 149:2001+A1:2009, *Respiratory protective devices — Filtering half masks to protect against particles — Requirements, testing, marking*. Includes total inward leakage testing on human subjects.
23. Greenhalgh T, Kane B, Reicher S. “Downgrade your mask before entering” — a dangerous NHS policy at a critical public health juncture. *BMJ* 2022; 378: o1929. doi:10.1136/bmj.o1929