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“Downgrade your mask before entering”—a dangerous NHS policy at a critical public health juncture

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In May 2022, the UK Health Security Agency changed its guidance to make masking in healthcare settings a provider decision dependent on local risk assessment and prevalence.¹ Local masking policies vary widely, but anecdotal reports indicate that some issue all visitors with a single-use disposable paper mask on arrival and ask them to replace the mask they are currently wearing with it. A request for examples on Twitter quickly drew dozens of responses including from immunosuppressed people who had attended for chemotherapy or scans and had been asked to remove their high-filtration FFP2 or FFP3 respirator and replace it with a single-use disposable mask as a condition of entry.² In some, but not all, examples, the individual had been able to negotiate putting the single-use mask on top of their respirator.

SARS-CoV-2 is an airborne pathogen which is transmitted when people inhale viral particles that infected individuals exhale when speaking, coughing, sneezing, and even just breathing.^{3–5} In contrast with droplet infection which usually occurs via a single ballistic hit, airborne infection risk increases incrementally with the amount of time the lining of the lungs spend continuously exposed to viral-laden air—in other words, with time spent indoors breathing contaminated air.⁶

Single-use disposable masks substantially reduce (but, importantly, do not entirely eliminate) the egress of SARS-CoV-2 particles into the air from infected individuals (‘source control’), hence a policy of requiring such masks is—to the extent that people comply—likely to substantially reduce the amount of virus circulating in the air and the overall level of transmission.^{7–9} However, single-use disposable masks are relatively ineffective at preventing *ingress* of viral particles in inhaled air (in other words, they do not adequately protect the wearer).⁷ This is partly because, unlike respirators (e.g. FFP2, FFP3, N95, N99), disposable masks are not made to any minimum filtration standard. But it is mainly because such masks often fit poorly, allowing air to enter around the gaps.¹⁰

Downgrading masks and limiting protection matters for everyone. It puts us at greater risk of infection and thereby increases disruptions to our individual lives, increases load on the NHS, and exacerbates workforce shortages. However, it has a particular impact on those who are clinically extremely vulnerable. By April 2021, the UK’s shielding programme had identified more than four million people who were at highest risk of severe illness from covid-19.¹¹ Due to the much higher mortality rates in this group, the government went to great lengths early in the pandemic to protect them, advising them to leave

home only to exercise or attend healthcare appointments. Use of health services by people classed as clinically vulnerable fell dramatically in the early months of the pandemic.¹¹ There is anecdotal evidence that clinically vulnerable people in the UK are still choosing to avoid their GP and hospital appointments and cancel their operations rather than risk entering a healthcare facility in which few people are adequately masked.¹² That they may be told to remove their own high-grade respiratory protection is an additional disincentive to accessing healthcare, with potential adverse consequences in the short- or longer-term.

Asking patients and visitors to downgrade their masks is not limited to the UK. In a report from the US, healthcare facilities allegedly cited guidance from the US Centers for Disease Control and Prevention to justify such a policy.¹³ In British Columbia, Canada, a downgrade-your-mask policy is the subject of an ongoing class action lawsuit under province-wide human rights legislation.

It is unlikely that “downgrade your mask” commands issued at the threshold of healthcare facilities were introduced as a deliberate policy intended to create disincentives and inequities for the most vulnerable patients. On the contrary, we believe they are the unintended consequence of two interacting influences, which we take in turn.

First, poor understanding of transmission dynamics. It is hardly surprising that front line administrative staff misunderstand how SARS-CoV-2 is transmitted. Major policy advisory bodies including the World Health Organisation, US Centers for Disease Control and Prevention, and Public Health England made confident announcements early in the pandemic that the virus was spread predominantly by droplets (which were believed to contaminate hands, objects, and surfaces) and that handwashing and surface cleansing were therefore the most crucial infection control measures. While face masks were depicted as “fomites” (accumulating concentrated virus as they became wet with exhaled droplets), the air people breathe was rarely depicted as a potential reservoir of infection except in rare circumstances such as the aerosol-generating procedures conducted by specialist doctors. Using this flawed mental model, replacing a “dirty” mask with one that is known to be “clean” before entering a healthcare facility makes sense.

Second, a rigid “compliance” culture. A compliance organisation is defined as one that passively takes policy in from a regulator, implements that policy, and monitors how well it is followed (i.e. the only data collected in this case is whether visitors are wearing the issued masks).¹⁴ In contrast, a learning

organisation is one where local implementation of policy is accompanied by feedback loops intended to evaluate and improve policy—for example, by measuring nosocomial infection rates and systematically analysing complaints about the policy from patients or staff.¹⁵ Given that rigidity is associated with burnout and that increased cognitive load can often reduce flexibility of thinking, it is hardly surprising that we are seeing increasing instances of a “compliance” culture in today’s overloaded, burnt out NHS.^{16–18}

The above factors may help explain local downgrade-your-mask policies, but they do not excuse them. The practice is not supported by evidence, puts patients and others at risk, excludes vulnerable people from health services, thereby exacerbating health inequalities, and could potentially lead to expensive lawsuits. More widely, at a time when covid prevalence is at an all-time high and clear and consistent messages are needed about the importance of wearing high-filtration well fitting masks, when NHS staff suggest that loose paper masks are better than respirators, it becomes all the harder to persuade people that the opposite is the case.¹⁹

If, conversely, the NHS were to provide all visitors with free FFP2 or FFP3 masks to replace paper or cloth masks, it would bring multiple benefits within and beyond healthcare settings. It would address the alarming dropoff of health service usage by clinically vulnerable people and it would constitute a powerful public health intervention. It is time for the NHS to switch its policy from downgrading to upgrading masks.

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