

Reducing infection risk to staff in healthcare settings

Executive summary

With substantial numbers of patients in hospital with COVID, the need to maintain ongoing non-COVID care and look after the millions of patients who are now on NHS waiting lists across the UK reducing the risk of infection in healthcare settings has never been more important. Getting this right will protect patients and staff and make sure the NHS makes the most of its workforce in tackling these challenges.

This report sets out a number of measures that need to be taken by employers and government to reduce the risk of infection. These include:

- Providing staff facilities that support infection control
- A greater focus on ventilation in healthcare environments
- The provision of safe and sufficient PPE
- Making improvements in staff testing
- Regular staff risk assessments, especially among vulnerable groups
- Reporting and investigation of COVID-19 cases suspected to have arisen from work

The BMA has consistently emphasised the importance of providing healthcare workers with adequate protection from COVID-19 while at work. It is important that there is a continued focus on implementing measures that can effectively protect healthcare workers from SARS-CoV-2, and that recommendations and guidance are continually revised as the evidence base evolves. The impact of any COVID-19 vaccine on these measures will also need to be kept under review. While several COVID-19 vaccines are in late stage development and healthcare workers will be a [priority group](#), it remains vital that robust measures are taken to protect healthcare workers from infection.

As well as a direct impact on individuals, COVID-19 infection of staff can have a significant impact on the delivery of care. In the BMA's most recent member survey almost one in two respondents (48%) said that self-isolation and sick leave due to COVID-19 had reduced the number of patients that could be seen, over a third (40%) said appointments had to be cancelled, and over two thirds (68%) had had to do additional work / overtime to cover for



absent colleagues¹. Whilst we cannot currently be completely certain where healthcare staff are being infected with COVID-19, we must take every possible precaution to limit transmission in the workplace.

Below we set out actions for healthcare providers across a range of areas that are required to help reduce staff infection risk within these environments. BMA guidance on COVID-19 for individuals is available [here](#).

Staff facilities that support infection control

Data on healthcare worker infections suggests that staff to staff contact in non-clinical areas is a significant factor in transmission of the virus in these settings and similar rates of infection have been recorded between clinical and non-clinical staff.^{2,3,4} It is important therefore that facilities for staff support infection control, including social distancing.

The entire NHS estate needs to be risk assessed to better understand the risk of spread of infection. Data on staff infection should be used to identify high-risk areas, shortcomings should be documented and must be addressed, with evidence recorded of the measures taken. It is crucial that hospitals and GP practices have adequate funding to ensure their premises are as COVID secure as possible. As noted prior to the onset of the COVID-19 pandemic At least £6.5 billion capital funding is needed to cover overdue maintenance costs in hospitals, alongside an extra £1bn for GP premises⁵.

A number of immediate steps are required to support improvements in this area:

- **Separate staff and patient changing, toilet and showering facilities:** Some staff are having to use communal or visitor toilets to change, which are wholly inadequate for safe practice. Provision of 'staff only' changing areas with showering facilities and toilets should be introduced particularly in offices, staff rooms, toilets and changing rooms. Both primary and secondary care settings are likely to require additional financial support in order to achieve this.
- **Rest areas where staff can rest as well as socially distance:** Rest areas are crucial in giving staff respite, improving wellbeing and addressing the risk from burnout. However, rest areas for breaks, if they exist, are often cramped and overcrowded and often do not have sufficient ventilation or space for appropriate physical distancing. Staff rest areas must be expanded to allow staff to maintain two metre physical distancing.
- **Staff laundry facilities should be more widely available** – so uniforms do not have to be taken home to be washed. Where this is not possible sealed bags should be provided for uniform to be transported home.
- **More virtual handovers:** Designated areas for activities such as handover are often wholly inadequate and physical distancing is impossible. Virtual handovers, clinical and management meetings using secure web-based software should be encouraged where possible.

1 British Medical Association, COVID-19: analysing the impact of coronavirus on doctors, (October 2020): <https://www.bma.org.uk/advice-and-support/covid-19/what-the-bma-is-doing/covid-19-bma-actions-and-policy/covid-19-analysing-the-impact-of-coronavirus-on-doctors>

2 Hunter E, Price DA, Murphy E, et al. First experience of COVID-19 screening of health-care workers in England. *Lancet* 2020;395(10234):e77-e78. [https://doi.org/10.1016/S0140-6736\(20\)30970-3](https://doi.org/10.1016/S0140-6736(20)30970-3) [published Online First: 2020/04/26]

3 Rivett L, Sridhar S, Sparkes D, et al. Screening of healthcare workers for SARS-CoV-2 highlights the role of asymptomatic carriage in COVID-19 transmission. *Elife* 2020;9 doi: <https://doi.org/10.7554/eLife.58728> [published Online First: 2020/05/12]

4 Treibel TA, Manisty C, Burton M, et al. COVID-19: PCR screening of asymptomatic health-care workers at London hospital. *Lancet* 2020;395(10237):1608-10. doi: [https://doi.org/10.1016/S0140-6736\(20\)31100-4](https://doi.org/10.1016/S0140-6736(20)31100-4) [published Online First: 2020/05/14]

5 British Medical Association, Comprehensive Spending Review Submission, (September 2020) [HYPERLINK "https://www.bma.org.uk/media/3313/bma-comprehensive-spending-review-2020-coConsultation-response-september-2020.pdf"](https://www.bma.org.uk/media/3313/bma-comprehensive-spending-review-2020-coConsultation-response-september-2020.pdf) <https://www.bma.org.uk/media/3313/bma-comprehensive-spending-review-2020-consultation-response-september-2020.pdf>

- **Greater use of physical barriers:** Where not already in place, adequate structural controls (for example the erection of physical barriers, such as screens, or changing the way staff move through the workplace in order to limit exposure to potential hazard) should be introduced.
- **Make use of temporary structures:** Where any of the above are not possible within current buildings, temporary structures should be produced – this would be far less costly than avoidable staff absences and complications for patients due to staff shortages.
- **All areas within the healthcare estate should display indicators of safe use.** It is important that, as well as rooms/spaces being risk assessed, warning/ guidance notices are clearly displayed on their safe use, for example setting out the maximum number of individuals able to use each area.

An increased focus on ventilation

Contact and droplet spread is likely to be the primary route of SARS-CoV-2 transmission.⁶ There is however increasing evidence about the role of aerosol transmission.^{7,8} The possibility of aerosol transmission (outside of aerosol generating procedures in healthcare) has been formally acknowledged by the World Health Organization (WHO).⁹ Ventilation can therefore play an important role in mitigating COVID-19 transmission. Steps to improve ventilation are now being recommended in advice given to the public¹⁰ and it is important that this is also applied to healthcare settings, with resources made available to support this.

- **Increased ventilation to reduce risk:** Ventilation can be as simple as opening a window or door. Heating, ventilation and air conditioning systems can equally have a role to play provided they allow for the exchange of indoor air with outdoor and don't simply recycle indoor air. Specific guidance on ventilation is available from the [HSE](#).
- **Measuring how well ventilated spaces are:** Inexpensive equipment is available that can indicate how well ventilated a room is (for example through measuring the ppm of carbon dioxide). These should be installed more widely in clinical and non-clinical areas.

Sufficient and appropriate personal protective equipment

While there have been significant improvements in the supply of PPE since the start of the pandemic, concerns remain. In the BMA's most recent survey (October 2020) 40% of respondents reported that they were only partly confident or not at all confident that their individual PPE needs will be met.

- **Provision of all [recommended PPE](#) for all workers based on relevant transmission-based precautions:** Employers are required to provide adequate supplies of PPE, and training in its safe use, to ensure staff remain as safe as possible in carrying out their duties. The BMA has produced guidance for individual members on refusing to treat where their PPE is inadequate
- **Embedding safe donning and doffing practices:** The safe donning and doffing of PPE is crucial to effectiveness. Clear guidance should be given to staff on how to do this safely, with regular checks to ensure this is being done safely, including (for RPE) carrying out regular fit checks.

6 WHO, 'Transmission of SARS COV-2: Implications for prevention precautions' (July 2020) <https://www.who.int/news-room/commentaries/detail/transmission-of-sars-cov-2-implications-for-infection-prevention-precautions>

7 Moraska W, Milton DK, et al. 'Is it time to address airborne transmission of COVID 19', Oxford University Press, 2020: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7454469/pdf/ciaa939.pdf>

8 Fennelly KP, Particle Sizes of infectious aerosols, implications for infection control' Lancet Respiratory Medicine 2020;8(9): P914-924. Doi: [https://doi.org/10.1016/S2213-2600\(20\)30323-4](https://doi.org/10.1016/S2213-2600(20)30323-4) published online first [2020,09,01]

9 WHO, 'Transmission of SARS COV-2: Implications for prevention precautions' (July 2020) <https://www.who.int/news-room/commentaries/detail/transmission-of-sars-cov-2-implications-for-infection-prevention-precautions>

10 UK Government, 'New film shows importance of ventilation to reduce spread of COVID-19', Press Release, 2020: <https://www.gov.uk/government/news/new-film-shows-importance-of-ventilation-to-reduce-spread-of-covid-19>

- **Regular fit testing:** Fit testing is also crucial and there must be adequate capacity to allow this to happen. Staff must be re-tested if new types of PPE are provided or if staff notice a change in fit in practice eg during a fit check at donning.
- **Use of FFP3 in 'Aerosol Generating Procedure' areas:** In line with current guidance, when carrying out aerosol generating procedures (or in areas where AGPs are being conducted) healthcare workers should expect to be provided with a single use gown and FFP3 respirator or a powered air purifying respirator hood.
- **Greater use of FFP3 outside 'AGP' areas, alongside investment in supply and fit testing:** Given concern about possible aerosol transmission outside of those procedures [designated as aerosol generating](#), as a precautionary step employers should review their guidance on PPE, so that healthcare professionals working in other environments that are higher risk have access to FFP3 respirator masks. This may include when providing close personal care to COVID-19 positive patients (within two metres) in poorly ventilated areas for a prolonged period. Any updated guidance on expanded use of respirator masks would need to be supported through enhanced supply and fit testing capacity, with a revised PPE strategy to reflect this.

Improvements in staff testing

It is important that health and social care workers (both with symptoms and those that are asymptomatic) have priority access to testing. Given concern about the asymptomatic spread of COVID-19 within health and care settings (including amongst staff), regular testing of asymptomatic staff has been introduced in some areas. This may be increasingly feasible with expanded testing capacity and new testing technologies – and steps should be taken to expand its use as soon as possible. Some concerns have been expressed about the sensitivity of new lateral flow tests¹¹ – it is therefore important that healthcare workers can continue to be guided by their symptoms, as well as having access to repeat testing. Alongside this there must be clear plans in place setting out the consequence of positive tests among healthcare workers, including managing isolation of staff testing positive and their contacts.

Adequate individual risk assessments

Individual risk assessments for staff are separate to, but should be informed by, workplace adaptations to determine and reduce risk. In this way, individual assessments can take account of known workplace COVID-19 hazards as well as mitigation for them, including the use of PPE. However, individual risk assessments must reflect factors specific to individuals, such as those which may put doctors and other health care workers at greater risk from COVID-19, or increase risk of severe disease. These factors include:

- Age, ethnicity, biological sex, specific health and long-term conditions, medications (including those which may modify the immune response), disability and pregnancy.

Individual risk assessments should be regularly reviewed. This is especially important for those who work across multiple sites, those redeployed from another role, or who may be returning to work in the NHS. An individual risk assessment must not replace the advice some doctors will have received, explaining that they have been determined as [clinically vulnerable or clinically extremely vulnerable to more severe illness if infected with COVID-19](#). This clinical evaluation takes precedence over any other risk assessment tools.

- For the most vulnerable doctors, working arrangements to mitigate their additional risk from COVID-19, including removing them entirely from settings in which COVID-19 hazards are present should be implemented and maintained until they are informed otherwise.

11 Mahase Elisabeth. Covid-19: Innova lateral flow test is not fit for "test and release" strategy, say experts BMJ 2020; 371: m4469 <https://www.bmj.com/content/371/bmj.m4469>

Reporting and investigation of COVID-19 cases suspected to have arisen from work

In order to learn lessons, it is essential that cases of COVID-19 which may have arisen from work through inadequate control measures are investigated. Besides any internal investigations, there is a legal duty on employers to [notify the HSE](#) when there is “reasonable evidence” of a worker contracting covid-19 through occupational exposure.¹² A report should not only outline the circumstances of the case but the remedies put in place to prevent recurrence. In view of the above concerns about aerosol transmission, cases may need to be reported in spite of wearing surgical masks as per PHE guidance.¹³ This would allow more thorough investigation and support better prevention of occupational spread of COVID-19.

Risk assessment tools

To support doctors and practices in understanding individual risks from COVID-19, the BMA has brought together [resources](#) that can help.

<https://www.bma.org.uk/advice-and-support/covid-19/your-health/covid-19-risk-assessment>

<https://www.bma.org.uk/advice-and-support/covid-19/returning-to-the-nhs-or-starting-a-new-role/covid-19-staff-redeployment>

12 Health and Safety Executive, 'Further guidance on RIDDOR reporting of COVID-19' 2020: <https://www.hse.gov.uk/coronavirus/riddor/riddor-reporting-further-guidance.htm>

13 Agius Raymond M, Robertson John F R, Kendrick Denise, Sewell Herb F, Stewart Marcia, McKee Martin et al. Covid-19 in the workplace BMJ 2020; 370: m3577 <https://www.bmj.com/content/370/bmj.m3577>

BMA

British Medical Association, BMA House,
Tavistock Square, London WC1H 9JP
bma.org.uk

© British Medical Association, 2020

BMA 2020