Health and Social Care and Science and Technology Committees: Coronavirus: lessons learnt

Submission by the Society for Applied Microbiology

Introduction

1. The Society for Applied Microbiology (SfAM) welcomes the opportunity to respond to the Health and Social Care and Science and Technology Committees' joint inquiry into lessons to be learned from the response to the coronavirus pandemic so far.

2. SfAM represents a global scientific community which draws upon its collective expertise in the application of microbiology to promote, for the benefit of the public, human health and safety. The concerns highlighted in this response reflect SfAM's commitment to ensuring frontline healthcare workers, who have put themselves at greater risk, have the safest practices and precautions based on the latest scientific evidence.

3. SfAM has previously submitted evidence to the Science and Technology Committees in both the House of Commons and House of Lords on ways the UK can learn from the current pandemic to better prepare for future ones. Those responses can be viewed on SfAM's briefings and consultations webpage.[1] SfAM will not duplicate those responses within this submission but highlight two concerns that have since been raised in the health and scientific communities.

4. First, incorrect and conflicting guidance for frontline workers regarding risks associated with cardiopulmonary resuscitation (CPR) continues to jeopardise both the health and safety of healthcare workers and their patients. Future guidance should be based on scientific evidence or acknowledgment of lack of evidence, with guidelines recommending extra precautions in cases where the evidence is insufficient.

5. Second, the Vaccination Prioritisation plan devised by the Joint Committee on Vaccination and Immunisation's (JCVI) should consider prioritising health care workers in the highest-ranking priority group due to their increased exposure to and risk of infecting others with COVID-19. Several factors affecting the efficacy and success of the vaccination program should be considered when determining prioritisation groups.

Incorrect and confusing guidance for frontline workers regarding CPR

6. On 24 April 2020, Public Health England's (PHE) guidelines stated that CPR was not an aerosol generating procedure (AGP) and thus did not require appropriate personal protective equipment (PPE) asserting that:

[1] SfAM Policy briefings and consultations webpage, https://sfam.org.uk/knowledge/policy/briefings-and-consultations.html

> "Based on this evidence review, the UK IPC guidance therefore will not be adding chest compressions to the list of AGPs. Healthcare organisations may choose to advise their clinical staff to wear FFP3 respirators, gowns, eye protection and gloves when performing chest compressions but we strongly advise that there is no potential delay in delivering this life saving intervention."[2]

7. However, prior to PHE's statement, the World Health Organisation on March 29, 2020 had identified cardiopulmonary resuscitation as an aerosol generating procedure that increased the risk of infection via airborne transmission in relation to COVID-19.

8. Likewise, the Resuscitation Council identified CPR as an AGP and raised concerns with PHE's guidance on 20 April 2020 stating:

> "We are deeply concerned by Public Health England (PHE)'s continued insistence on designating chest compressions as non-Aerosol Generating Procedures (AGPs). The absence of high-quality evidence for this should not be interpreted as the absence of risk. The clinical reality is that chest compressions produce excretions from a patient's nose and mouth. As such, irrespective of whether this is via aerosol or droplet or both, this poses a demonstrable risk to Health Care Professionals (HCPs)."[3]

9. Most recently, following its scientific review of the systemic risk to rescuers from patients in cardiac arrest, on 5 August 2020, the International Liaison Committee on Resuscitation (ILCOR) recommended "that chest compressions and cardiopulmonary resuscitation have the potential to generate aerosols…We suggest that in the current COVID-19 pandemic, healthcare professionals should use personal protective equipment for aerosol generating procedures during resuscitation."[4]

10. Despite continued guidance recommending the use of PPE when performing CPR from these leading international healthcare bodies, the most recent version of PHE's COVID-19: Infection Prevention and Control (IPC) updated on 20 October 2020 reconfirmed its previous position:

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[2] Public Health England, "PHE statement regarding NERVTAG review and consensus on cardiopulmonary resuscitation as an aerosol generating procedure (AGP)," 20 October 2020. https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/phe-statement-regarding-nervtag-review-and-consensus-on-cardiopulmonary-resuscitation-as-an-aerosol-generating-procedure-agp--2.

[3] Resuscitation Council, RCUK Statement on PHE PPE Guidance, 28 April 2020. https://www.resus.org.uk/about-us/news-and-events/rcuk-statement-phe-ppe-guidance

[4] ILCOR "COVID-19: Practical Guidance for Implementation", 5 August 2020. https://www.ilcor.org/covid-19

> "Current expert consensus from NERVTAG is that chest compressions are not considered to be procedures that pose a higher risk for respiratory infections including COVID-19."[5]

11. In the absence of aligned guidance amongst trusted infection control bodies, frontline workers and hospital administrations have been left to decide on their own which guidance to follow. Many have been forced to make difficult decisions about the use of FFP3 protection, which has physical, mental, and emotional consequences.

12. Future guidance should be based on applied scientific evidence in consultation with experts to avoid promoting incorrect information that jeopardises frontline workers' as well as patients' safety. If guidelines are based on scientific evidence or acknowledgment of lack of sufficient evidence, contradictory advice from health agencies and subsequent confusion among practitioners could be avoided in future. Moreover, where there is lack of sufficient evidence, practitioners should be encouraged to err on the side of caution using best safety practices rather than risk unnecessarily exposing themselves to deadly pathogens.

13. Since the Government recently announced its decision to replace Public Health England with the National Institute for Health Protection, we strongly recommend that when this new health agency is established, non-partial scientific expertise is incorporated throughout the institution and is the basis for future policy and guidance.

Vaccination Prioritisation

14. While SfAM supports most of JCVI's considered approach in developing a vaccination prioritisation plan once a vaccine is available, it is imperative that this plan prioritises vaccination of health care workers, instead of ranking them in the second priority group.

15. Vaccinating health and social care workers ensure essential healthcare services can continue to be provided. This is crucial particularly while vaccination supplies are low and not available to distribute on a mass scale. Frontline workers are also more susceptible to infection with COVID-19 because of increased exposure in healthcare settings. While we do not have evidence to verify if a vaccine would stop recipients from transmitting SARS-CoV-2 to others, these healthcare workers pose more of a risk of transmission through their interactions with patients who are already in vulnerable positions.

16. For those reasons listed above, international organisations like the World Health Organisation's Strategic Advisory Group of Experts (SAGE) have placed health workers as a top priority, labelled Stage Ia, in all modelled scenarios of vaccine

[5] Public Health England, "COVID-19: Infection Prevention and Control (IPC) guidance," 20 October 2020. https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control

supply and epidemiologic settings scenarios in its "Roadmap for Prioritising uses of COPVID-19 Vaccines", published on 20 October.[6] Likewise, the National Academies of Sciences Engineering Medicine (NASEM) also ranked first responders and high-risk health workers as the top priority in Phase 1a of their Phased Approach to Vaccine Allocation for COVID-19.[7]

17. We appreciate that JCVI has recognised that prioritisation could change substantially depending on the first vaccines' suitability and effectiveness in older adults. We therefore recommend that JCVI consider those factors as well as administration and locations with high concentrations of infection, other specific product characteristics of the available vaccines, and its effects on acquisition and transmission of disease once sufficient evidence becomes available. As JCVI acquires more evidence on these factors following the initial roll-out of the vaccine, it is imperative that JCVI continuously reassesses the vaccine's benefits for different priority groups.

About the Society for Applied Microbiology

The Society for Applied Microbiology (SfAM) is the oldest microbiology society in the UK, representing a global scientific community that is passionate about the application of microbiology for the benefit of the public. Our members work to address issues spanning the environment, human and animal health, agriculture, and industry.

www.sfam.org.uk

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[6] World Health Organisation WHO Strategic Advisory Group of Experts on Immunization, 20 October 2020. https://www.who.int/immunization/sage/covid-19_documents/en/

[7] National Academies of Sciences Engineering Medicine, "Framework for Equitable Allocation of a COVID-19 Vaccine", 2 October 2020. https://www.nationalacademies.org/our-work/a-framework-for-equitable-allocation-of-vaccine-for-the-novel-coronavirus