2 August 2020

The Hon. Greg Hunt MP
Minister for Health
Parliament of Australia
Via email: Minister.Hunt@health.gov.au

Dear Minister Hunt,

Expression of No Confidence in the Infection Control Expert Group

We commend many aspects of the government's response to the COVID-19 pandemic. However, we respectfully draw your attention to comments made by Professor Lyn Gilbert, Chair of the Infection Control Expert Group (ICEG), on national television on 27 July 2020 in reference to respiratory protection for healthcare workers (HCWs).

On the ABC's *7.30* program, respiratory physician and president of the Royal Australasian College of Physicians (RACP) Professor John Wilson said:

> "Many of our members have reported to us that they don't feel safe wearing surgical masks alone and that they would prefer to have access to N95 masks."

Prof. Gilbert's response was:

> "That's obviously very controversial. Our advice has been, that for ordinary routine care of patients with COVID, surgical masks are appropriate. And the reason for that is that N95 masks are not that easy to wear. They need to be properly fitted."[1]

The opinion of the Chair of the ICEG is important, because the opinion of the members of the ICEG informs national guidelines on personal protective equipment (PPE) use in healthcare settings, which in turn influences infection control policies in the states and territories. However, the rationale behind the ICEG's recommendations on respiratory protection is not transparent. This interview provided a rare opportunity to understand why the ICEG is resistant to calls for greater use of respirators,[2] and the insight provided by its Chair's comments was alarming.

[1] 'The debate over masks', ABC *7.30*, 27 July 2020, accessible: https://www.abc.net.au/7.30/the-debate-over-masks/12497510

[2] MacIntyre, C.R., Ananda-Rajah, M., Nicholls, M. and Quigley, A.L., 2020. Current guidelines for respiratory protection of Australian health care workers against COVID-19 are not adequate and national reporting of health worker infections is required. *The Medical Journal of Australia*. Preprint.

The assertion by the Chair of the ICEG that HCWs would either not tolerate or not be competent to wear respirators concerns us greatly. That the need for fit testing would be used as an excuse not to recommend use of respirators is disappointing. Over 3,000 HCWs have died of COVID-19 globally[3] and over 1,000 HCWs in Australia have been infected with COVID-19, with at least one death and several doctors currently admitted to intensive care units in Melbourne. Based on peer-reviewed literature, we believe that the current recommendation of the ICEG for only a surgical mask for routine care of COVID-19 suspected and confirmed patients is the Achilles' heel of our PPE ensemble. Mounting evidence supports the airborne spread of this pathogen[4] and yet the surgical mask is not approved for respiratory protection. The best available evidence found that N95 respirators offer significantly better protection (96%) than surgical masks (67%) against infection from SARS, MERS and SARS-CoV-2.[5]

In most of our workplaces we have been instructed to comply with guidelines informed by ICEG recommendations despite having had no input into their development – in contradiction to the *Work Health and Safety Act 2011* (Cth).[6] The conflict and stress that we continue to experience because of flawed policy on respiratory protection is adding needlessly to the burden of holding the last line of defence of Australia's response to the pandemic.

We write to express our lack of confidence in the ICEG and expand on our concerns below. At the conclusion of this letter we provide recommendations for reform of the ICEG to address these concerns.

ICEG guidelines are not evidence based

1. The distinction between droplet and airborne spread of infections, used by ICEG to drive guidelines on "droplet precautions" and "airborne precautions" is based on a single, outdated study from the 1930s.[7] Later studies show that droplets and aerosols exist in a continuum, and that droplets can travel far further than the two metres assumed by "droplet precautions", which are the recommended precautions for Australian HCWs treating most COVID-19 patients.

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[3] 'Global: Health workers silenced, exposed and attacked', Amnesty International, 13 July 2020, accessible: https://www.amnesty.org/en/latest/news/2020/07/health-workers-rights-covid-report/

[4] Morawska, L. and Milton, D.K., 2020. It is time to address airborne transmission of COVID-19. *Clin Infect Dis*, *6*, p.ciaa939.

[5] Chu, D.K., Akl, E.A., Duda, S., Solo, K., Yaacoub, S., Schünemann, H.J., El-harakeh, A., Bognanni, A., Lotfi, T., Loeb, M. and Hajizadeh, A., 2020. Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. *The Lancet*.

[6] s 3(1)(b) of the *Work Health and Safety Act 2011* (Cth), accessible: https://www.legislation.gov.au/Details/C2011A00137

[7] Bahl P, Doolan C, De Silva C et al., 2020. Airborne or Droplet Precautions for Health Workers Treating Coronavirus Disease 2019?. *The Journal of Infectious Diseases*.

2. There is compelling evidence that SARS-CoV-2 is spread by the aerosol route, with virus found in air samples and in air vents in hospital wards.[8] [9] One study even showed that coronaviruses are more airborne than influenza or other respiratory viruses, and can be exhaled in normal breathing, without a cough or sneeze.[10] Research across five top laboratories in the United States showed that SARS-CoV-2 is more airborne than SARS or MERS CoV, which are both known to be spread by the airborne route.[11]

3. The best evidence supporting use of the respirator is a World Health Organization (WHO) commissioned review in *The Lancet* which, as noted above, showed that N95 respirators offer statistically significantly higher protection (96%) than surgical masks (67%) for health workers, against the beta-coronaviruses SARS, MERS and SARS-CoV-2.[5]

The ICEG has rejected the precautionary principle in HCWs

The precautionary principle stipulates that in the face of significant harm, i.e. death or disability, despite imperfect evidence, there is an imperative to protect workers' safety. During this pandemic, where scientific evidence is changing rapidly, it is essential that the precautionary principle be applied in accordance with work health and safety principles. Unfortunately, directives on respirator use at the health service level have been reactionary and haphazard, in response to rising HCW infections during the Victorian resurgence of COVID-19 and repeated calls from HCWs themselves for greater protection. This lesson was articulated clearly in the final report of *The SARS Commission* in Ontario, Canada, and should not be learned again in Australia at the cost of our HCWs' lives.[12]

Experiences of frontline Australian HCWs

HCWs face unique challenges when looking after patients with COVID-19 or those with suspected COVID-19. Both scenarios should initially involve the *same* PPE requirements until the COVID-19 status of the patient is known. **These unique risks are repeated exposures to infection that are non-random within a highly contaminated healthcare setting**. It is perplexing that the ICEG has not advocated for higher PPE standards (with the exception of HCWs exposed to aerosol generating procedures on patients with suspected or confirmed COVID-19) when there is good evidence that N95 masks, adequate eye protection and rigorous enforcement of process control prevent infection from coronaviruses. No deaths

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[8] Santarpia, J.L., Rivera, D.N., Herrera, V.L., et al., 2020. Aerosol and surface contamination of SARS-CoV-2 observed in quarantine and isolation care. *Scientific Reports*, 10, 12732.

[9] Ong S, Tan Y, Chia P et al 2020. JAMA Air, surface environmental, and PPE contamination by SARS-CoV-2 from a symptomatic patient. *JAMA*.

[10] Leung N, Chu D, Shiu E., 2020. Respiratory virus shedding in exhaled breath and efficacy of face masks. Nature Medicine.

[11] Fears A, Klimstra W, Duprex P., 2020 Persistence of SARS-CoV-2 in aerosol suspensions. EID.

[12] http://www.archives.gov.on.ca/en/e_records/sars/report/v1-pdf/Vol1Chp3.pdf, pp 22-23.

among anaesthetists or intensivists in a study of HCW deaths within the NHS (United Kingdom) suggests that their higher level of PPE was protective.[13]

False arguments

i. There is insufficient supply of surgical masks and respirators

Current availability of surgical masks and other PPE is good, thanks to procurement by the government, including the advent of local respirator production. Re-usable products such as elastomeric respirators with replaceable filters have not even been discussed, yet are highly cost-effective and have been used in many hospitals in the United States and United Kingdom. In any case, guidelines should be based on best evidence and not supply. Governments should then ensure that production or procurement is increased to allow implementation of best-evidence guidelines.

ii. Surgical masks are good enough

The "equivalence" of the respirator and surgical mask is based on a flawed understanding of two randomised controlled trials (RCTs) that did not have control arms.[14] [15] Equivalence is a concept that arose around drug trials, and is where a treatment is already proven to be superior to placebo. A second treatment when compared against this first treatment is then deemed to be equivalent if no difference is found between arms of a RCT. Without a control arm, these trials cannot prove equivalence.

iii. Masks are of questionable benefit

We were also dismayed by the comment from the Chair of the ICEG regarding community mask wearing in New South Wales:

> "There's really no evidence, I don't think, that wearing masks in the community at this stage would make any difference."[1]

This message is irresponsible given that Victoria is in crisis and NSW is on a knife edge. Everything that can be done to flatten the curve should be strongly advocated by public experts such as the Chair of the ICEG. The arguments that masks create a false sense of security, result in self-inoculation, or reduce physical distancing are not based on scientific evidence. In fact, the best available evidence shows the opposite – that they reduce the risk of infection by 85%[5] and promote social distancing, based on a study using wearable sensors in 12,000 people encounters in Italy.[16]

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[13] Cook T, Kursumovic E, Lennane S, 2020. Exclusive: deaths of NHS staff from covid-19 analysed. Health Serv J.

[14] Loeb M, Dafoe N, Mahony J, et al., 2009. Surgical mask vs N95 respirator for preventing influenza among health care workers: a randomized trial. *JAMA*.

[15] Radonovich LJ, Jr., Simberkoff MS, Bessesen MT, et al. 2019. N95 Respirators vs Medical Masks for Preventing Influenza Among Health Care Personnel: A Randomized Clinical Trial. *JAMA*.

[16] Marchiori, M. et al., 2020. COVID-19 and the Social Distancing Paradox: dangers and solutions. *arXiv preprint arXiv:2005.12446*.

iv. Fit testing is optional

It is highly concerning that Australian guidance such as the document, *Guidance on the use of personal protective equipment (PPE) in hospitals during the COVID-19 outbreak*[17] fails to recognise the importance of fit testing of respirators. This document, for example, states, "…fit-testing of all health care professionals, who may need to use P2/N95 respirators, will be difficult due to limited supplies and range of types/sizes available." While this may be true, what the pandemic has revealed is longstanding deficiencies in safe work practices in the Australian healthcare system.

That we have historically failed to invest in protecting our HCWs is no excuse for not aiming for best practice now. Instead of accepting substandard practice, Australian guidelines should advocate and advise on a pathway to achievement of optimal workplace safety practices, including fit testing of respirators. We note that the *Australian Guidelines for the Prevention and Control of Infection in Healthcare*, state: "In order for a P2 respirator to offer the maximum desired protection it is essential that the wearer is properly fitted and trained in its safe use."[18] If fit testing fails, then alternatives like elastometric masks should be provided.

v. Australia's guidelines are consistent with international guidelines

It is false to assert that Australia's guidelines are consistent with international best practice. While they may align with some guidelines, they recommend an inferior standard of protection compared to that which is recommended in Europe. The *Infection prevention and control and preparedness for COVID-19 in healthcare settings* technical report (Fourth update – 3 July 2020) of the European Centre for Disease Prevention and Control states:

> "Healthcare workers in contact with a possible or confirmed COVID-19 case should wear a respirator [as specified in EN 149:2001+A1:2009] tested for fitting, eye protection (i.e. visor or goggles), gloves and a long-sleeved gown."[19]

vi. Independent evaluation of HCW infections is not needed

HCWs are at higher risk of infection than community dwellers, with one study from the United Kingdom and United States showing that the risk was three to four times greater, reinforcing the need for stringent hazard controls in heathcare settings.[20] **We call for transparent national reporting of HCW infections.** This should be adjudicated by an

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[17] https://www.health.gov.au/resources/publications/guidance-on-the-use-of-personal-protective-equipment-ppe-in-hospitals-during-the-covid-19-outbreak (accessed 30 July 2020)

[18] https://www.nhmrc.gov.au/about-us/publications/australian-guidelines-prevention-and-control-infection-healthcare-2019 (accessed 30 July 2020)

[19] https://www.ecdc.europa.eu/sites/default/files/documents/Infection-prevention-and-control-in-healthcare-settings-COVID-19_4th_update.pdf

[20] Nguyen, L.H., Drew, D.A., Graham, M.S., et al., 2020. Risk of COVID-19 among front-line health-care workers and the general community: a prospective cohort study. *Lancet Public Health*. Online First.

independent panel separate to health services or agencies, to avoid conflicts of interest. A standardised method of reporting should be followed that mitigates any bias that would attribute infections to community acquisition. A national committee that reviews HCW infections should have representatives from the Australasian Faculty of Occupational and Environmental Medicine, Australian Nursing and Midwifery Federation, a medical union, and representatives of national and jurisdictional work health and safety bodies. Infected HCWs themselves should be encouraged to review these investigations in keeping with consumer-led and open disclosure principles.

Conclusion

In summary, we are dismayed that Australia's HCWs are being forced to accept flawed policy that has not adapted to evolving evidence and has been set without consultation of either frontline healthcare workers, their unions, or work health and safety experts. The assertion by the Chair of the ICEG that a higher level of protection in the form of the respirator is unnecessary in the worst pandemic of our lifetimes is irresponsible. Multiple doctors in Melbourne are currently requiring intensive care, and many more doctors, nurses and other HCW colleagues have fallen sick already. We are not "disposable" and our safety must be given the highest priority with effective respiratory protection for every suspected or confirmed COVID-19 patient encounter, every time.

We applaud your commitment, Minister Hunt, to target zero HCW deaths from COVID-19. Now we need your help to achieve it. As an immediate step, we ask that you make an executive decision to recommend use of P2/N95 respirators by HCWs treating suspected and confirmed COVID-19 patients, in line with the precautionary principle. Then, in order to restore our confidence in the ICEG, we urge you to reform its membership to include an appropriate breadth of expertise. We suggest: the specialist medical colleges, including representatives from the Australasian Faculty of Occupational and Environmental Medicine; experts with a scientific track record in aerosol science, personal protective equipment and worker safety (not just infectious diseases or infection control); and healthcare worker unions. This reform is urgent as Victorian HCWs in particular, are fighting multiple fronts, against COVID-19 *and* the flawed approach to their occupational health and safety.

Yours sincerely,

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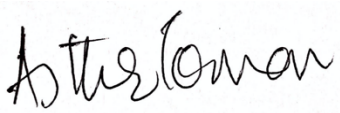

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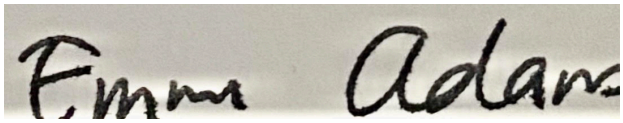

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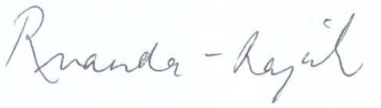

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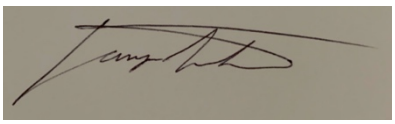

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