

# The importance of consistent advice during a pandemic

## *An analysis of Australian advice regarding personal protective equipment in healthcare settings during COVID-19*

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### Background

Lessons from previous pandemics emphasise the importance of consistent information and advice for healthcare workers (HCWs), particularly in relation to their use of personal protective equipment (PPE).

### Objective

The aim of this article is to review the consistency of advice regarding HCW use of PPE among Australian states and territories and 10 key Australian professional and advocacy organisations, against the Australian Government's national guidelines.

### Discussion

While some recommendations expand on the national guidelines, the Australian Government's efforts to work in concert with states, territories and peak professional and advocacy organisations are evident in the broadly consistent recommendations for the use of PPE by HCWs and other people working in healthcare settings across the country. The overall consistency of recommendations for the use of PPE shows a nationwide attempt to support and protect the healthcare workforce and the Australian community during the COVID-19 pandemic.

**ON 11 MARCH 2020**, the Director-General of the World Health Organization (WHO) announced that the number of cases and spread of novel coronavirus (COVID-19) characterised it as a pandemic. While emphasising the seriousness of this public health emergency, he emphasised the crucial need for prevention, preparedness, public health and political leadership in responding to the pandemic.<sup>1</sup>

The consequences of a health system ill-prepared for local epidemics and pandemics have been well documented. Lessons from the severe acute respiratory syndrome and Ebola outbreaks emphasise the importance of preparing the health workforce, including education and preparation for use of personal protective equipment (PPE).<sup>2,3</sup> Integral to the effectiveness of these measures is the need for reliable sources of consistent, evidence-based information to inform and assist healthcare workers (HCWs).<sup>4,5</sup> This is particularly pertinent to their use of PPE, which may be the basis of distress or confusion if supplies are inadequate or compromised, or guidance on appropriate usage is unclear.<sup>6</sup>

Australian<sup>7,8</sup> and Canadian<sup>9</sup> guidelines for the use of PPE are consistent with the WHO recommendations:<sup>10</sup> during routine care of people with suspected or confirmed

COVID-19, HCWs should – in addition to wearing a long-sleeved gown, face shield or goggles, and non-sterile gloves – use masks, and during aerosol-generating procedures (AGPs) they should use respirators in place of masks. However, these guidelines differ from guidelines used by the US Centers for Disease Control and Prevention (CDC),<sup>11</sup> the European Center for Disease Prevention and Control (ECDC),<sup>12</sup> UK Public Health<sup>13</sup> and the Chinese CDC,<sup>14</sup> all of which recommend, in addition to other precautions, the use of respirators during both routine care and in high-risk situations when caring for a patient with COVID-19.

The Australian Government's response to COVID-19 is founded on the provision of clear and consistent communication to protect both the community and the health workforce.<sup>15</sup> This includes the development of recommendations for the use of PPE that can be adapted for use by Australian states and territories, and healthcare organisations. This approach is in line with the foundation principles of the National Cabinet, which allow for local variation in response to assessment of epidemiological trends and other critical elements of context.<sup>16</sup>

The authors reviewed current Australian advice regarding HCW use of PPE and compared state- and

territory-based recommendations, and those of 10 key Australian professional and advocacy organisations, against the national guidelines. Consistency was explored from a pragmatic perspective, seeking to identify apparent conflicts that would be problematic for readers. The authors specifically examined what PPE should be worn when: under which circumstances or with which patients. The organisational websites examined were: Australian College of Nursing, Australian Nursing and Midwifery Foundation (ANMF), The Royal Australian College of General Practitioners (RACGP), Australian Physiotherapy Association, Dental Board of Australia, Optometry Australia, Leading Aged Services Australia, the National Aboriginal Community Controlled Health Organisation (NACCHO), the Aboriginal Medical Services Alliance Northern Territory, and the National Disability Insurance Scheme. Links to each of these websites are provided in Box 1.

### National guidelines

The Communicable Diseases Network Australia (CDNA), a joint initiative of the Australian Health Ministers' Advisory Council (AHMAC) and the National Health and Medical Research Council (NHMRC), provides policy, strategy and advice on the prevention and control of communicable disease.<sup>17</sup> The CDNA guidelines for HCW use of PPE for COVID-19<sup>18</sup> have been adopted by the Australian Government Department of Health (AGDH). In addition to the auspice of standardised guidelines at the national level, the AHMAC is advised by the Australian Health Protection Principal Committee, convened by the Australian Chief Medical Officer, and including all state and territory Chief Health Officers.<sup>19</sup> This committee provides a forum for aligning policy, planning and guidance between the Commonwealth and state and territory governments and oversees the work of the CDNA.

Current AGDH advice provides separate interim recommendations for use of PPE (16 April 2020), depending on whether patient contact occurs in hospital or in non-inpatient settings. Hospital guidelines recommend:<sup>8</sup>

- standard precautions (hand hygiene, cough etiquette and respiratory hygiene) for all patients with respiratory infection
- transmission-based precautions for suspected or confirmed cases of COVID-19, including:
  - contact and droplet precautions (long-sleeved gown, surgical mask, face shield or goggles, non-sterile gloves) for routine care
  - contact and airborne precautions (as above with substitution of P2/N95 respirator mask, fit-checked with each use) when performing AGPs.

Ambulatory care guidelines apply to general practice and other community-based primary healthcare settings, pathology collection centres, residential aged care facilities, and hospital outpatient and emergency departments, and recommend:<sup>7</sup>

- standard precautions for all patients
- contact and droplet precautions for routine care of patients in quarantine or under investigation, people with suspected or confirmed COVID-19, and care and collection of specimens from people with mild or no symptoms
- contact and airborne precautions when performing AGPs, providing care to patients with severe respiratory symptoms, and specimen collection (including nasopharyngeal and oropharyngeal swabs and sputum) from people with severe symptoms suggestive of pneumonia, including fever and breathlessness or severe cough.

All Australian state and territory guidelines are consistent with AGDH advice in terms of content, but are often differently organised or structured. For example, states and territories frame similar information in quite different ways or use variable communication and dissemination strategies, such as COVID-19 alerts for clinicians (NT Health). Many provide instructions (pictorial or video) about the correct use of PPE, including donning and doffing. Some states provide additional resources; for example, South Australia Health has developed a PPE Matrix that also includes links to the AGDH website. Queensland Health has developed a pdf document. The authors noted that information on

the website changed during the course of the review, and some information is likely to have changed since. In addition to providing links to the AGDH guidelines, most also provide links to external organisations, including the WHO, the NHMRC<sup>20</sup> and the NSW Clinical Excellence Commission,<sup>21</sup> all of which provide advice consistent with the AGDH. Notably, the links provided do not include the US CDC or ECDC guidelines, which advocate more extensive use of PPE than the WHO and AGDH guidelines.

In addition to PPE guidelines for COVID-19 that are consistent with the AGDH, the Victorian Department of Health and Human Services provides a guide to the use of PPE during the COVID-19 pandemic (20 April 2020) advising that all health or community workers use surgical masks in areas of high clinical risk (intensive care units, urgent care centres, and emergency departments) 'and where the person is NOT suspected or confirmed to have COVID-19 and is not in quarantine'.<sup>22</sup> While this recommendation is largely focused on the acute care sector, and refers to areas where AGPs more commonly occur, concerns about risks of asymptomatic or presymptomatic transmission have also been raised in other first-contact primary care settings, where HCWs may be exposed to risk associated with community transmission.

All professional and advocacy organisation websites examined provide advice consistent with the AGDH and/or direct links to the AGDH COVID-19 website. Most also provide links to the AGDH infection prevention and control training resources, as well as to similar training programs on other websites, including the WHO,<sup>23</sup> Australian Commission for Quality and Safety in Healthcare,<sup>24</sup> the NHMRC<sup>20</sup> and the London School of Hygiene and Tropical Medicine.<sup>25</sup> NACCHO provides a link for HCWs to the National COVID-19 Clinical Evidence Taskforce website,<sup>26</sup> where the guidelines for PPE use in the clinical care of people with COVID-19 are consistent with the AGDH guidelines.

In the context of current concerns regarding global shortages of PPE, several organisations provide a link to the WHO's

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**Box 1. Australian state, territory and organisational website links included in this review**


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## ACT Health

- [www.health.act.gov.au/health-professionals/chief-health-officer-alerts](http://www.health.act.gov.au/health-professionals/chief-health-officer-alerts)

## Australian College of Nursing

- [www.acn.edu.au/covid-19-resources](http://www.acn.edu.au/covid-19-resources)

## Aboriginal Medical Services Alliance Northern Territory

- [www.amsant.org.au/covid-19](http://www.amsant.org.au/covid-19)

## Australian Nursing and Midwifery Federation

- <http://anmf.org.au/campaign/entry/coronavirus-covid-19-information-for-members>

## Australian Physiotherapy Association

- <https://australian.physio/infection-control>

## Dental Board of Australia

- [www.dentalboard.gov.au/News/2020-04-02-COVID19-update-to-dental-practitioners-2-April.aspx](http://www.dentalboard.gov.au/News/2020-04-02-COVID19-update-to-dental-practitioners-2-April.aspx)

## NSW Health

- [www.health.nsw.gov.au/Infectious/diseases/Pages/coronavirus-professionals.aspx](http://www.health.nsw.gov.au/Infectious/diseases/Pages/coronavirus-professionals.aspx)
- <http://cec.health.nsw.gov.au/keep-patients-safe/COVID-19/Guidance-for-health-professionals>

## Northern Territory Government Department of Health

- <https://health.nt.gov.au/health-alerts>

## Optometry Australia

- [www.optometry.org.au/practice-professional-support/coronavirus-covid-19-what-optometrists-need-to-know/covid-19-clinical-advice/infection-control-guidelines-and-advice](http://www.optometry.org.au/practice-professional-support/coronavirus-covid-19-what-optometrists-need-to-know/covid-19-clinical-advice/infection-control-guidelines-and-advice)

## Queensland Health

- [www.health.qld.gov.au/clinical-practice/guidelines-procedures/novel-coronavirus-qld-clinicians/personal-protective-equipment-ppe](http://www.health.qld.gov.au/clinical-practice/guidelines-procedures/novel-coronavirus-qld-clinicians/personal-protective-equipment-ppe)

## South Australia Health

- [www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/conditions/infectious+diseases/covid+2019/coronavirus+disease+2019+covid-19](http://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/conditions/infectious+diseases/covid+2019/coronavirus+disease+2019+covid-19)

## Tasmanian Government Department of Health

- [www.dhhs.tas.gov.au/publichealth/communicable\\_diseases\\_prevention\\_unit/infectious\\_diseases/coronavirus](http://www.dhhs.tas.gov.au/publichealth/communicable_diseases_prevention_unit/infectious_diseases/coronavirus)
- [http://www.dhhs.tas.gov.au/publichealth/tasmanian\\_infection\\_prevention\\_and\\_control\\_unit/healthcare\\_worker\\_education/proper\\_use\\_of\\_personal\\_protective\\_equipment](http://www.dhhs.tas.gov.au/publichealth/tasmanian_infection_prevention_and_control_unit/healthcare_worker_education/proper_use_of_personal_protective_equipment)

## Government of Western Australia, Department of Health

- [https://ww2.health.wa.gov.au/Articles/A\\_E/Coronavirus](https://ww2.health.wa.gov.au/Articles/A_E/Coronavirus)

## National Aboriginal Community Controlled Health Organisation (NACCHO)

- [www.naccho.org.au](http://www.naccho.org.au)

## National Disability Insurance Scheme (NDIS)

- <https://www.ndis.gov.au/coronavirus/providers-coronavirus-covid-19/connecting-and-helping-participants>

## The Royal Australian College of General Practitioners

- [www.racgp.org.au/coronavirus#update16](http://www.racgp.org.au/coronavirus#update16)

## Victoria State Government Department of Health and Human Services

- [www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19](http://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19)
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guidance for rational use of PPE.<sup>27</sup> Four states (Western Australia, Queensland, New South Wales and Victoria) provide advice for the duration of use of PPE. Both the New South Wales Department of Health and the RACGP provide explicit direction that if adequate PPE is not available, staff are not to proceed with carrying out at-risk procedures.<sup>28,29</sup> The RACGP includes a recommendation to contact the local public health unit for further advice regarding safe transfer of the patient to a location where appropriate care can be provided. The Victorian Department of Health and Human Services provides advice about the rational use of PPE for clinical transport services.<sup>22</sup>

This review is limited in that it was conducted as a rapid, pragmatic assessment in response to an evolving policy landscape and did not employ a specific communications theory or framework. The review was undertaken at a time of uncertainty when Australian HCWs had concerns about accessing PPE and were seeing images of their colleagues in other countries wearing hazmat suits to work. The authors hope their findings provide a source of reassurance for Australian HCWs that the guidelines in place are evidence-based and consistent across the states and territories, despite what may appear to be superficial differences.

Australian state and territory websites, and key professional and advocacy organisation websites, all provide advice for PPE use that is consistent with the AGDH guidelines. The Victorian Department of Health advice for the use of surgical masks by HCWs working in areas of high clinical risk expand on the AGDH guidelines. While all Australian governments – federal, state and territory – have worked in concert with each other to provide consistent recommendations for the use of PPE, there are ongoing concerns about the capacity to implement these guidelines in clinical practice due to global shortages of PPE, noted as early as 3 March 2020 by the WHO.<sup>30</sup> This collaborative approach illustrates an attempt to provide consistent policy related to use of PPE by HCWs in Australia, while allowing for customisation at the state and territory level.

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