

COVID-19

General considerations for conserving personal protective equipment (PPE)

7 March 2020

In anticipation that supply of some or all lines of PPE may become depleted there are strategies that should be considered to reduce and rationalise the use of PPE.

Strategies should be commenced now, in order to conserve the amount of stock that remains available. It is likely that there will be supply chain disruptions while there are COVID-19 outbreaks globally.

Reserve supply

Careful management of the supply chain should be in effect at all levels.

- Health Support Queensland has already implemented careful monitoring and reporting of supply from suppliers and to Hospital and Health Services (HHS).
- HHS should implement careful monitoring and management of PPE. This should include measures at all levels of the supply chain, from the initial distribution and storage to patient care areas.
- All orders of PPE, surgical masks and P2 respirators in particular, should be scrutinised.

Storage of P2 masks and surgical masks should be secure.

- These items should not be accessible to staff, patients or general public except as required.
- There is a need for surgical masks to be available to patients presenting with suspected COVID-19, however, these masks should be supervised by a staff member and not left out for patients to access themselves.
- Managers of patient care areas should consider removing these items from general stock storage areas into a more secure location, for example a locked medication room.

Reduce use

The use of PPE should be reconsidered at all points of use. Strategies to consider when introducing strategies to reduce PPE use are:

- any strategy to reduce the use of PPE should not reduce the safety of health workers
- PPE should be available to be used by those who require it
- unnecessary use of PPE should be avoided
- PPE training should use expired stock only
- access to PPE should not be freely accessible to the public
- PPE should be appropriately rotated to avoid expired stock.

Substitute products

Consideration can be given to using alternative products:

- reusable gowns, including splash resistant gowns, are available in most hospitals and may be considered for use in certain areas that currently use single use items
- the use of plastic aprons instead of long-sleeved disposable gowns where appropriate
- the use of re-usable eye protection instead of single use eye protection
- the use of a full-face shield instead of a surgical mask for situations that are appropriate.

Extended use

Extended use is the practice of wearing the same PPE for repeated patient interactions without removing and replacing the PPE. Before extended use is considered, all efforts should be made, by other methods, to remove or reduce the necessity for the use of a respirator. This might be done for example by using physical barriers or using intercom systems or phones to communicate with patients in isolation.

The extended use of some forms of PPE may be considered where a local risk assessment of the situation has occurred and there are processes for training staff in the appropriateness of extended use. This strategy is most appropriate in a health setting where COVID-19 patients are cohorted together in the same ward or waiting area.

Extended use is most appropriate for masks or eye protection, where a surgical mask, P2 respirator and/or eye protection is left in-situ for multiple patient interactions as these items do not come directly into contact with a patient.

If this strategy is used there are some considerations for each type of PPE that should be addressed locally before implementation.

P2 masks

P2 masks should be:

- discarded after an aerosol generating procedure
- discarded if contaminated with blood or bodily fluids
- not worn outside of the patient care area (i.e. to a ward reception area or break room or between wards or bathroom)
- removed before proceeding to care for patients other than those who are isolated for COVID-19
- replaced if it becomes hard to breathe through or no longer holds its shape or no longer conforms to the wearers face.

There is no recommended maximum length of time that a P2 respirator can be worn. It is likely that a health worker will remove or change a mask for reasons such as taking a toilet break or leaving the patient care area before the mask is not performing correctly. The worker should be reminded to occasionally check their mask to ensure that the correct fit is maintained.

Clear instructions and training about the criteria for changing a P2 respirator should be provided to staff who will be using the respirators in an extended use area. Hand hygiene must be performed before the wearer touches the front of the mask to adjust the fit or maintain comfort. Hand hygiene must be performed immediately before and immediately after removing a mask.

Surgical masks

Surgical masks should be:

- discarded if contaminated with blood or bodily fluids
- not worn outside of the patient care area (i.e. to a ward reception area or break room or between wards)
- removed before proceeding to care for patients other than those who are isolated for COVID-19
- removed when it becomes wet or damp.

Surgical masks are designed to be worn for extended periods of time. They are generally well tolerated on the face. It is likely that a health worker will remove or change a mask for reasons such as taking a toilet break or leaving the patient care area before the mask is not performing correctly. Masks should not be pulled down around the chin and neck and then re-worn. Hand hygiene must be performed immediately before and immediately after removing a mask.

Eye protection

Eye protection can consist of items that protect the wearer's eyes from sprays and splashes. It may consist of reusable safety goggles, single use face shields or reusable frames fitted with single use lenses. Reusable eye protection should be cleaned and disinfected as per local procedure for non-critical medical devices before it is reused.

Eye protection should:

- be reprocessed or discarded if visibly contaminated with blood or body fluids
- not worn outside the patient care area
- removed before proceeding to care for patients other than those who are isolated for COVID-19.